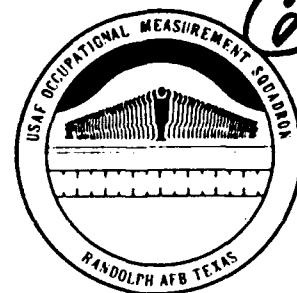




UNITED STATES  
AIR FORCE



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# OCCUPATIONAL SURVEY REPORT

STRUCTURAL CAREER LADDER

AFSC 552X0

AFPT 90-552-891

MARCH 1991

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OCCUPATIONAL ANALYSIS PROGRAM  
USAF OCCUPATIONAL MEASUREMENT SQUADRON  
AIR TRAINING COMMAND  
RANDOLPH AFB, TEXAS 78150-5000

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| HQ USAFE/TTA                         | 1          |                          | 1                        |                          |
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## PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Structural career ladder (AFSC 552X0). Authority for conducting occupational surveys is contained in AFR 35-2. Computer products upon which this report is based on are available for use by operations and training officials.

The survey instrument was developed by Mrs Cindy Luster, Inventory Development Specialist, with computer programming support furnished by Mr Wayne Fruge. Ms Raquel A. Soliz provided administrative support. Mrs Joan T. Brooks, Occupational Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Squadron.

A Training Requirements Analysis (TRA) is also being accomplished in conjunction with this OSR. The TRA will provide a comprehensive data base in support of career ladder training decisions. The TRA consists of three sections: (a) System Overview - an overall perspective of career ladder training; (b) Task Analysis - consisting of detailed training decision data for career ladder technical tasks; and (c) Training Requirements/Recommendations - giving recommendations on what should be trained, when training should occur, and where training should be provided.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to the USAF Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78150-5000 (DSN 487-6623).

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## SUMMARY OF RESULTS

1. Survey Coverage: The Structural (AFSC 552X0) career ladder was surveyed to obtain current task and equipment data for use in examining current training programs. Survey results are based on responses from 1,502 AFSC 552X0 personnel (85 percent of all assigned 3-, 5-, and 7-skill-level career ladder personnel).
2. Career Ladder Structure: Overall, 10 jobs were identified in the AFSC 552X0 specialty, with 30 percent working in the Framing and Interior Carpentry job. The remaining jobs involved Interior Finishers, Framers, Interior Carpenters, Concrete and Masonry Construction Personnel, Locksmiths, Supply Personnel, Planners, Supervisors, and Prime Beef.
3. Career Ladder Progression: Personnel in the Structural career ladder show a typical pattern of career ladder progression. The 3- and 5-skill-level personnel perform essentially a technical job. At the 7-skill-level, personnel are first-line supervisors, performing a mixture of technical and supervisory tasks. Specialty descriptions in AFR 39-1 provide a broad and accurate overview of tasks and duties performed within the career ladder.
4. Training Analysis: A match of survey data to the AFSC 552X0 Specialty Training Standard (STS) identified many STS items not supported by survey data. A similar match of data to the Plan of Instruction (POI) for the 3ABR55230 course, revealed many POI objectives were also not supported. Career ladder functional managers and training personnel should carefully review these nonsupported STS and POI items to justify their continued inclusion in the training documents.
5. Job Satisfaction: Overall, AFSC 552X0 respondents are generally satisfied with their jobs. Personnel in most specialty jobs feel their talents and training are well utilized. When compared to other direct support personnel surveyed in 1989, AFSC 552X0 personnel show somewhat higher job satisfaction.
6. Implications: The identified career ladder structure for AFSC 552X0 career ladder in the present survey was similar to that of 1985. This holds true with the recent merger of the Carpentry and Masonry career ladders in 1987. The AFR 39-1 job descriptions accurately describe the jobs and tasks performed by personnel at all skill levels, and job satisfaction was positive for the jobs identified. The overall analysis suggests that some changes are merited in both the STS and the POI, and these documents should be reviewed by training personnel for possible revision.

OCCUPATIONAL SURVEY REPORT  
STRUCTURAL CAREER LADDER  
(AFSC 552X0)

INTRODUCTION

This is a report of an occupational survey of the Structural career ladder conducted by the Occupational Analysis Program, USAF Occupational Measurement Squadron. The HQ ATC Combat Support Training Division (TTOC) requested this survey to obtain current task and job data for use in examining current training programs. This is the first survey of the Structural career ladder since its merger in October 1987. However, a combined Occupational Survey Report (OSR) was published in January 1985 for the then separate Carpentry and Masonry career ladders, AFSCs 552X0/552X1/55273.

Background

As described in the AFR 39-1 Specialty Descriptions for AFSCs 55210/30/50, 3- and 5-skill-level members are responsible for constructing, maintaining, repairing, and modifying buildings and structures; conducting and installing finishings and furnishings; laying out and preparing carpentry and masonry materials; maintaining carpentry and masonry tools, and installing and replacing building hardware; setting, maintaining, and repairing ceramic, mosaic, and quarry wall and floor tile; preparing mortar, concrete, plaster, and stucco; maintaining and repairing plaster and stucco surfaces; and adjusting, troubleshooting, repairing, and installing locking devices on security containers.

In addition to the above, 7-skill-level members are also responsible for preparing and supervising work layouts, identifying and selecting materials, and performing planning activities.

Initial 3-skill-level training for AFSC 552X0 personnel is provided through a Category B, 11-week, 3-day course at Sheppard AFB TX. The Apprentice Structural Specialist course, J3ABR55230, teaches construction and maintenance of wood and masonry structures; maintenance and use of structural tools and equipment; installation of building hardware; interpretation of construction drawings; compiling bills of materials; cabinet construction, installation, and repair; finish work; installing gypsum board, suspended ceilings, paneling, interior trim, windows, doors, stairs, glass, and insulation; erection of prefabricated metal buildings; laying brick, building block, and structural tile; setting wall and floor tile; preparing concrete, mortar, stucco, and plaster mixes; installing concrete forms and reinforcement materials; placing and finishing concrete; applying protective coating materials; identifying built-up roofing components; and contingency support functions.

Entry into the career ladder currently requires an Armed Forces Vocational Aptitude Battery (ASVAB) Mechanical score of 51 and an X factor of K (70 lbs for a height of 6 ft).

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## SURVEY METHODOLOGY

### Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-552-891, dated June 1989. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, tasks from the previous 552X0, 552X1, and 55273 survey instruments, and data from the last 552X0/X1/73 Occupational Survey Report (OSR). The preliminary task list was refined and validated through personal interviews with 50 subject-matter experts selected to cover a variety of major commands (MAJCOM) at the following locations:

| <u>BASE</u>       | <u>REASON FOR VISIT</u>  |
|-------------------|--|
| Sheppard AFB TX   | Location of ATC Technical Training School                        |
| Tyndall AFB FL    | HQ for Engineering Services Center                               |
| Eglin AFB FL      | Location for 'Readiness' Training Site                           |
| Hurlburt Field FL | REDHORSE unit, heavy construction unit                           |
| Nellis AFB NV     | Demolition training  |
| Vandenberg AFB CA | Readiness Oriented Ownership Management organizational structure |
| Edwards AFB CA    | Flight test centers maintained by 552X0 personnel                |
| Norton AFB CA     | Representation for MAC   |
| Mather AFB CA     | Representation for ATC   |
| Travis AFB CA     | Representation for MAC   |

Other personnel contacted included Air Force Military Personnel Center (AFMPC) classification personnel, functional and resource managers, the Air Force functional manager, and the HQ ATC Training Staff Officer for AFSC 552X0.

The resulting job inventory contained a comprehensive listing of 1,054 tasks grouped under 25 duty headings, with a background section requesting such information as grade, duty title, time in present job, time in service, job satisfaction, and equipment maintained in performance of an incumbent's job.

TABLE 1  
AFSC 552X0 MAJCOM DISTRIBUTION

| <u>COMMAND</u> | <u>PERCENT OF<br/>ASSIGNED*</u> | <u>PERCENT OF<br/>SAMPLE**</u> |
|----------------|---------------------------------|--------------------------------|
| SAC            | 19                              | 18                             |
| TAC            | 18                              | 17                             |
| MAC            | 13                              | 14                             |
| USAFE          | 12                              | 13                             |
| AFLC           | 9                               | 9                              |
| PACAF          | 9                               | 8                              |
| ATC            | 7                               | 7                              |
| AFSC           | 5                               | 4                              |
| AAC            | 4                               | 4                              |
| USAFA          | 1                               | 1                              |
| OTHER          | 3                               | 3                              |

Total Assigned: 2,182  
Total Eligible for Survey: 1,860  
Total in Sample: 1,502  
Percent of Eligible in Sample: 81%  
Percent of Assigned in Sample: 69%

\* Assigned strength as of May 1989

\*\* Excludes those in PCS, retirement, discharge, or hospital status, and those with less than 6 weeks on the job

NOTE: Columns may not add to 100 percent due to rounding

TABLE 2  
PAYGRADE DISTRIBUTION OF AFSC 552X0

| <u>PAYGRADE</u> | <u>PERCENT OF<br/>ASSIGNED*</u> | <u>PERCENT OF<br/>SAMPLE</u> |
|-----------------|---------------------------------|------------------------------|
| AIRMAN          | 24                              | 23                           |
| E-4             | 32                              | 29                           |
| E-5             | 25                              | 28                           |
| E-6             | 12                              | 12                           |
| E-7             | 7                               | 7                            |

\* Assigned strength as of May 1989

NOTE: Columns may not add to 100 percent due to rounding

### Survey Administration

From November 1989 through August 1990, Consolidated Base Personnel Offices (CBPO) at operational bases worldwide administered the inventory to all eligible DAFSC 552X0 personnel. Members eligible for the survey consisted of the total assigned 3-, 5-, and 7-skill-level population, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring during the time inventories were administered to the field; and (4) personnel in their job less than 6 weeks. Participants were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Armstrong Laboratory, Human Resources Directorate.

Each individual who completed the inventory first filled in an identification and biographical information section and then checked each task performed in his or her current job. After checking all tasks performed, each individual then rated each of these tasks on a 9-point scale showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

### Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across major commands (MAJCOM) and military paygrades. Table 1 reflects the percentage distribution, by MAJCOM, of assigned AFSC 552X0 personnel as of May 1989. The 1,502 respondents in the final sample represent 69 percent of all assigned AFSC 552X0 personnel. Table 2 reflects the percentage distribution by paygrade groups. As shown by both tables, the survey sample accurately reflects the overall AFSC 552X0 population.

### Task Factor Administration

In addition to completing the job inventory, selected senior 552X0 personnel (generally E-6 or E-7 technicians) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the job inventories. This information is used in a number of different analyses discussed in more detail within the report.

Task Difficulty (TD). Each individual completing a TD booklet was asked to rate all of the tasks on a 9-point scale (from extremely low to extremely high) as to the relative difficulty of each task in the inventory. Difficulty is defined as the length of time required by the average incumbent to learn to do the task. Task difficulty data were independently collected from 60 experienced 7-skill-level personnel stationed worldwide. Interrater agreement among these raters was acceptable. Ratings were standardized, so tasks have an average difficulty rating of 5.00, with a standard deviation of 1.00. The resulting data yield essentially a rank-ordering of tasks indicating the degree of difficulty for each task in the inventory.

Training Emphasis (TE). Individuals completing TE booklets were asked to rate tasks on a 10-point scale (from no training required to extremely high amount of training emphasis). TE is a rating of which tasks require emphasis in structured training for first-term personnel. Structured training is defined as training provided at resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. TE data were independently collected from 65 experienced 7-skill-level personnel stationed worldwide. As with TD ratings, the interrater reliability was also acceptable. In this specialty, tasks rated high in TE have ratings of 5.40 and above, with an average rating of 2.89. As was discussed in the Task Difficulty (TD) section above, TE data may also be used to rank order tasks, indicating those tasks which senior NCOs in the field consider the most important for the first-term airmen to know.

When used in conjunction with the primary criterion of percent members performing, TD and TE ratings can provide insight into first-term personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting AFS entry-level jobs.

#### SPECIALTY JOBS (Career Ladder Structure)

Each USAF Occupational Analysis begins with an examination of the career ladder structure. The structure of jobs within the Structural career ladder was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

Each individual in the sample performs a set of tasks called a job. For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description (all the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the job inventory. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine

them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

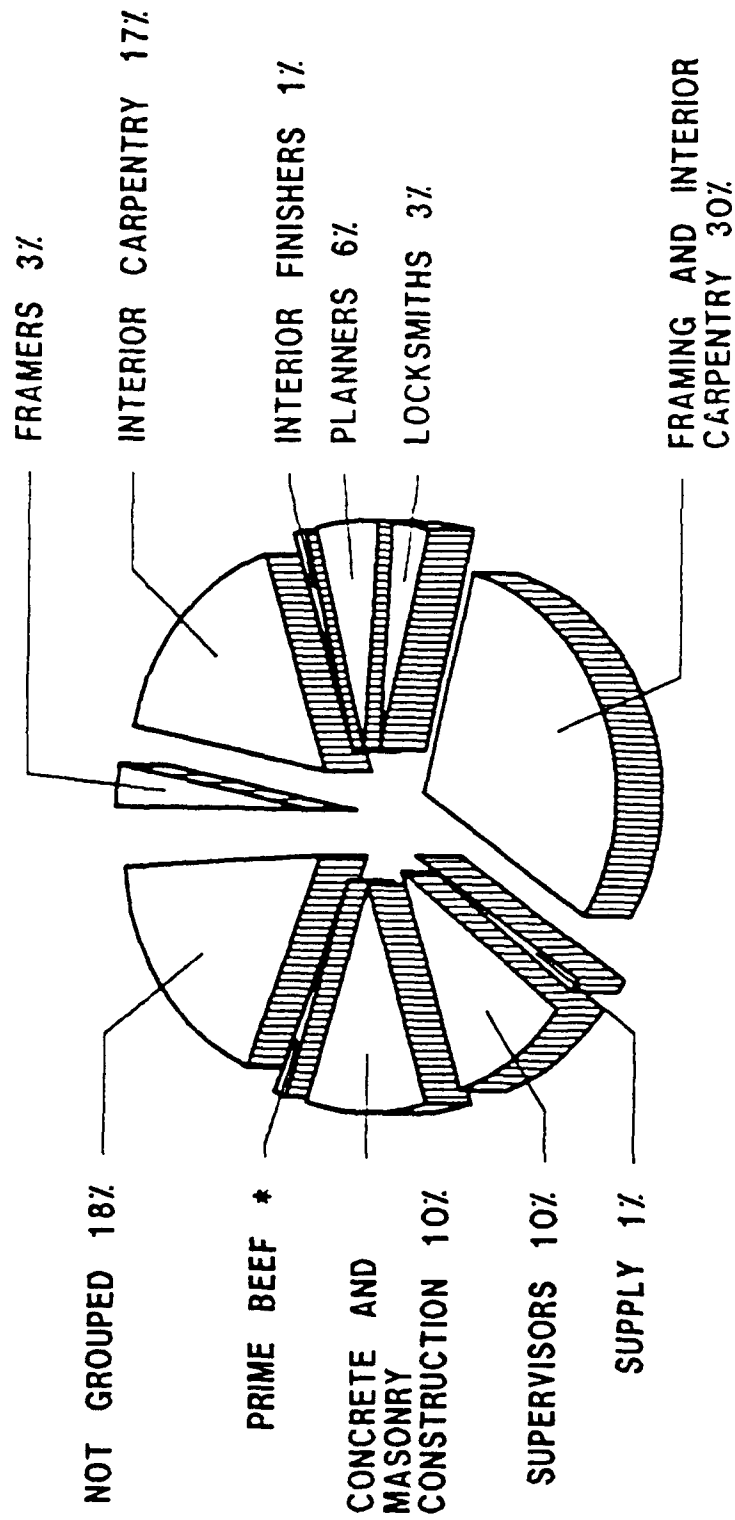
The basic identifying group used in the hierarchical job structuring process is the Job Type. When there is a substantial degree of similarity between Job Types, they are grouped together and identified as a cluster. Specialized Job Types too dissimilar to fit within a cluster are labeled Independent Job Types (IJT). The job structure resulting from this grouping process (the various jobs within the career ladder) can be used to evaluate the accuracy of career ladder documents (AFR 39-1 Specialty Descriptions and Specialty Training Standards) and to gain a better understanding of current utilization patterns. The above terminology will be used in the discussion of the 552X0 career ladder structure.

#### Overview of Specialty Jobs

Based on the similarity of tasks performed and the amount of time spent performing each task, eight clusters and two independent job types were identified within the survey sample. The division of jobs performed by AFSC 552X0 personnel is illustrated in Figure 1, and a listing of those jobs is provided below. The relative time spent by respondents in each duty is presented in Table 3. The stage (ST) number shown beside each title is a reference to computer-printed information; the number of personnel in each group (N) is also shown.

- I. INTERIOR FINISHERS IJT (STG497, N=11)
- II. FRAMERS CLUSTER (STG070, N=51)
- III. INTERIOR CARPENTRY CLUSTER (STG125, N=262)
- IV. FRAMING AND INTERIOR CARPENTRY CLUSTER (STG180, N=451)
- V. LOCKSMITHS CLUSTER (STG397, N=48)
- VI. CONCRETE AND MASONRY CONSTRUCTION CLUSTER (STG195, N=148)
- VII. SUPPLY CLUSTER (STG124, N=17)
- VIII. PLANNERS CLUSTER (STG083, N=88)
- IX. SUPERVISORS CLUSTER (STG119, N=148)
- X. PRIME BEEF IJT (STG238, N=5)

# AFSC 552X0 CAREER LADDER JOBS



\* Less than 1 percent

Figure 1

TABLE 3

DISTRIBUTION OF DUTY TIME SPENT BY MEMBERS OF CAREER LADDER  
(RELATIVE PERCENT OF JOB TIME)

| DUTIES   | INTERIOR FINISHERS<br>IJT<br>(STG497,<br>N=11) |  | FRAMERS<br>CLUSTER<br>(STG070,<br>N=51) |  | INTERIOR CARPENTRY<br>CLUSTER<br>(STG180,<br>N=451) |  | FRAMING &<br>INTERIOR CARPENTRY<br>CLUSTER<br>(STG125,<br>N=262) |  | LOCKSMITHS<br>CLUSTER<br>(STG397,<br>N=48) |  |
|--|--|--|---|--|---|--|--|--|--|--|
|  |  |  |   |  |   |  |  |  |  |  |
| A. ORGANIZING AND PLANNING                                     | *  |  | *                                       |  | 1   |  | 1  |  | 2  |  |
| B. DIRECTING AND IMPLEMENTING                                  | 2  |  | 1                                       |  | 2   |  | 2  |  | 2  |  |
| C. INSPECTING AND EVALUATING                                   | 1  |  | 1                                       |  | 2   |  | 2  |  | 2  |  |
| D. TRAINING  | 1  |  | 1                                       |  | 2   |  | 1  |  | 2  |  |
| E. PERFORMING ADMINISTRATIVE FUNCTIONS                         | 0  |  | *                                       |  | 1   |  | 2  |  | 2  |  |
| F. PERFORMING SUPPLY AND EQUIPMENT FUNCTIONS                   | 3  |  | *                                       |  | 1   |  | 1  |  | 2  |  |
| G. PREPARING PROJECT PLANNING AND CONSTRUCTION LAYOUT          | 6  |  | 1                                       |  | 3   |  | 2  |  | 1  |  |
| H. CONSTRUCTING WOOD OR METAL FORMS FOR CONCRETE               | *  |  | 3                                       |  | 3   |  | 2  |  | *  |  |
| I. CONSTRUCTING AND MAINTAINING CONCRETE STRUCTURES            | *  |  | 5                                       |  | 7   |  | 5  |  | 1  |  |
| J. FRAMING BUILDINGS   | 1  |  | 44                                      |  | 23  |  | 9  |  | 2  |  |
| K. INSTALLING AND MAINTAINING INTERIOR AND EXTERIOR FINISHINGS | 7  |  | 22                                      |  | 20  |  | 28   |  | 6  |  |
| L. CONSTRUCTING AND MAINTAINING INTERIOR FURNISHINGS           | 39   |  | 2                                       |  | 4   |  | 4  |  | *  |  |
| M. CONSTRUCTING AND MAINTAINING LOW-SLOPE ROOFING SYSTEMS      | 0  |  | 1                                       |  | 2   |  | 1  |  | *  |  |
| N. PREPARING MORTAR, CONCRETE, STUCCO, AND PLASTER             | 0  |  | 1                                       |  | 1   |  | 1  |  | *  |  |
| O. APPLYING AND MAINTAINING PLASTER AND STUCCO                 | *  |  | *                                       |  | 1   |  | 2  |  | *  |  |
| P. CONSTRUCTING AND MAINTAINING MASONRY STRUCTURES             | 0  |  | 1                                       |  | 2   |  | 1  |  | *  |  |
| Q. SETTING AND REPLACING CERAMIC AND QUARRY TILE               | 0  |  | 1                                       |  | 2   |  | 4  |  | *  |  |
| R. PERFORMING STONE MAINTENANCE AND CONSTRUCTION               | 0  |  | *                                       |  | *   |  | *  |  | 0  |  |
| S. MAINTAINING HANDTOOLS AND POWER EQUIPMENT                   | 32   |  | 6                                       |  | 6   |  | 10   |  | 7  |  |
| T. CONSTRUCTING AND MAINTAINING PREFABRICATED BUILDINGS        | 0  |  | 0                                       |  | *   |  | *  |  | 0  |  |
| U. INSTALLING AND MAINTAINING LOCKING DEVICES                  | 1  |  | 3                                       |  | 4   |  | 6  |  | 57   |  |
| V. PERFORMING HEAVY TIMBER CONSTRUCTION                        | 0  |  | 0                                       |  | *   |  | *  |  | 0  |  |
| W. CONSTRUCTING AND MAINTAINING TRAINING AIDS OR EXHIBITS      | 1  |  | *                                       |  | *   |  | *  |  | *  |  |
| X. PACKING AND CRATING   | 2  |  | *                                       |  | *   |  | *  |  | *  |  |
| Y. PERFORMING PRIME BEEF FUNCTIONS                             | 5  |  | 8                                       |  | 11  |  | 15   |  | 14   |  |

\* Denotes less than 1 percent

TABLE 3 (CONTINUED)

DISTRIBUTION OF DUTY TIME SPENT BY MEMBERS OF CAREER LADDER  
(RELATIVE PERCENT OF JOB TIME)

| DUTIES   | CONCRETE<br>& MASONRY<br>CONSTRUCTION<br>CLUSTER<br>(STG195,<br>N=148) | SUPPLY<br>CLUSTER<br>(STG124,<br>N=17) | PLANNERS<br>CLUSTER<br>(STG083,<br>N=88) | SUPERVISORS<br>CLUSTER<br>(STG119,<br>N=148) | PRIME BEEF<br>IJT<br>(STG238,<br>N=6) |
|--|--|--|--|--|---------------------------------------|
| A. ORGANIZING AND PLANNING                                     | 1  | 3                                      | 6  | 11   | 1                                     |
| B. DIRECTING AND IMPLEMENTING                                  | 1  | 5                                      | 5  | 11   | 1                                     |
| C. INSPECTING AND EVALUATING                                   | 1  | 6                                      | 7  | 13   | *                                     |
| D. TRAINING  | 1  | 2                                      | 1  | 6  | 0                                     |
| E. PERFORMING ADMINISTRATIVE FUNCTIONS                         | 1  | 3                                      | 8  | 7  | 1                                     |
| F. PERFORMING SUPPLY AND EQUIPMENT FUNCTIONS                   | 1  | 31                                     | 6  | 10   | 1                                     |
| G. PREPARING PROJECT PLANNING AND CONSTRUCTION LAYOUT          | 2  | 2                                      | 38                                       | 9  | 0                                     |
| H. CONSTRUCTING WOOD OR METAL FORMS FOR CONCRETE               | 6  | *                                      | *  | 1  | 0                                     |
| I. CONSTRUCTING AND MAINTAINING CONCRETE STRUCTURES            | 17   | 1                                      | *  | *  | 0                                     |
| J. FRAMING BUILDINGS   | 9  | 1                                      | 1  | 2  | 0                                     |
| K. INSTALLING AND MAINTAINING INTERIOR AND EXTERIOR FINISHINGS | 11   | 1                                      | *  | 2  | 7                                     |
| L. CONSTRUCTING AND MAINTAINING INTERIOR FINISHINGS            | 2  | 1                                      | *  | 1  | *                                     |
| M. CONSTRUCTING AND MAINTAINING LOW-SLOPE ROOFING SYSTEMS      | 1  | *                                      | 1  | 1  | 0                                     |
| N. PREPARING MORTAR, CONCRETE, STUCCO, AND PLASTER             | 5  | *                                      | *  | *  | 0                                     |
| O. APPLYING AND MAINTAINING PLASTER AND STUCCO                 | 6  | 0                                      | *  | *  | 0                                     |
| P. CONSTRUCTING AND MAINTAINING MASONRY STRUCTURES             | 11   | 0                                      | *  | *  | 0                                     |
| Q. SETTING AND REPLACING CERAMIC AND QUARRY TILE               | 7  | *                                      | *  | *  | 0                                     |
| R. PERFORMING STONE MAINTENANCE AND CONSTRUCTION               | 1  | 0                                      | *  | *  | 0                                     |
| S. MAINTAINING HANDTOOLS AND POWER EQUIPMENT                   | 6  | 17                                     | 1  | 3  | 2                                     |
| T. CONSTRUCTING AND MAINTAINING PREFABRICATED BUILDINGS        | *  | *                                      | 0  | *  | 0                                     |
| U. INSTALLING AND MAINTAINING LOCKING DEVICES                  | 1  | *                                      | *  | 1  | 1                                     |
| V. PERFORMING HEAVY TIMBER CONSTRUCTION                        | *  | 0                                      | 0  | *  | 0                                     |
| W. CONSTRUCTING AND MAINTAINING TRAINING AIDS OR EXHIBITS      | *  | 0                                      | *  | *  | 0                                     |
| X. PACKING AND CRATING   | *  | 4                                      | *  | 1  | *                                     |
| Y. PERFORMING PRIME BEEF FUNCTIONS                             | 8  | 22                                     | 24                                       | 20   | 84                                    |

\* Denotes less than 1 percent

The respondents forming these groups account for 82 percent of the survey sample. The remaining 18 percent were performing tasks or series of tasks which did not group with any of the defined jobs. Job titles given by respondents which were representative of these personnel included Woodworking Specialist, Exhibit Carpenter, Zone Crew Chief, Assistant NCOIC Lighting, and Field Supervisor.

Table 4 displays selected background information, such as DAFSC distributions across each group, predominant paygrades, average months in service (i.e., TAFMS), and average number of tasks performed. For example, Table 4 shows the Framers cluster has 51 members who have an average paygrade of E-3 and perform an average of 74 tasks.

### Group Descriptions

The following paragraphs contain brief descriptions of the clusters and independent job types identified through the career ladder structure analysis. Representative tasks for all the groups are contained in Appendix A.

I. INTERIOR FINISHERS IJT (ST0497). The 11 members of this job represent 1 percent of the total survey sample. The overall mission of these members involves constructing and maintaining interior furnishings. Their work requires that the finishing touches; i.e., cabinets, doors, and hinges, be performed before a structure can be completed. Some of the most representative tasks performed by members of this job include:

- constructing desk or wall plaques
- constructing cabinets
- constructing picture frames
- applying finish or protective coatings, such as  
varnishes, paints, or stains to wood furnishings
- installing or replacing cabinet doors
- constructing tables
- installing or replacing cabinets
- repairing damaged cabinets
- constructing wall or corner shelves

Members of this job report an average grade of E-4 and an average of slightly over 6 years time in the service. Forty-five percent are in their first enlistment, and 27 percent report holding a 3-skill-level DAFSC.

II. FRAMERS CLUSTER (ST0070). The 51 members of this group represent 3 percent of the total survey sample. The overall mission of these members primarily involves the framing of buildings. These members perform mostly new work, rather than maintaining completed structures. Members spend 44 percent of their relative duty time on tasks pertaining to framing buildings. An

TABLE 4

## SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

|                                   | INTERIOR<br>FINISHERS<br>IJT<br>(STG497) | FRAMERS<br>CLUSTER<br>(STG070) | INTERIOR<br>CARPENTRY<br>CLUSTER<br>(STG125) | FRAMING &<br>INTERIOR<br>CARPENTRY<br>CLUSTER<br>(STG180) | LOCKSMITHS<br>CLUSTER<br>(STG397) |
|-----------------------------------|--|--------------------------------|--|---|-----------------------------------|
| NUMBER IN GROUP                   | 11                                       | 51                             | 262  | 451   | 48                                |
| PERCENT OF SAMPLE                 | 1%                                       | 3%                             | 17%  | 30%   | 3%                                |
| PERCENT IN CONUS                  | 100%                                     | 78%                            | 78%  | 76%   | 69%                               |
| DAFSC DISTRIBUTION (PERCENT)      |  |                                |  |   |                                   |
| 55230                             | 27%                                      | 53%                            | 33%  | 16%   | 17%                               |
| 55250                             | 55%                                      | 43%                            | 57%  | 65%   | 58%                               |
| 55270                             | 18%                                      | 4%                             | 10%  | 19%   | 25%                               |
| AVERAGE PAYGRADE                  |  |                                |  |   |                                   |
| AVERAGE MONTHS IN PRESENT JOB     | E-4                                      | E-3                            | E-4  | E-4   | E-4                               |
| AVERAGE T1CF (MOS)                | 37                                       | 26                             | 30   | 49  | 40                                |
| AVERAGE TAFMS (MOS)               | 68                                       | 32                             | 54   | 73  | 77                                |
|                                   | 76                                       | 48                             | 70   | 86  | 94                                |
| PERCENT IN FIRST ENLISTMENT       |  |                                |  |   |                                   |
| PERCENT SUPERVISING               | 45%                                      | 75%                            | 47%  | 32%   | 35%                               |
| AVERAGE NUMBER OF TASKS PERFORMED | 27%                                      | 20%                            | 30%  | 48%   | 40%                               |
|                                   | 53                                       | 74                             | 116  | 285   | 89                                |

TABLE 4 (CONTINUED)  
SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

|                   | CONCRETE<br>& MASONRY<br>CONSTRUCTION<br>CLUSTER<br>(STG195) | SUPPLY<br>CLUSTER<br>(STG124) | PLANNERS<br>CLUSTER<br>(STG083) | SUPERVISORS<br>CLUSTER<br>(STG119) | PRIME BEEF<br>IJT<br>(STG238) |
|-------------------|--|-------------------------------|---------------------------------|------------------------------------|-------------------------------|
| NUMBER IN GROUP   | 148  | 17                            | 88                              | 148                                | 6                             |
| PERCENT OF SAMPLE | 10%  | 1%                            | 6%                              | 10%                                | *                             |
| PERCENT IN CONUS  | 70%  | 59%                           | 68%                             | 59%                                | 100%                          |

| DAFSC DISTRIBUTION (PERCENT) |     |     |     |     |     |
|------------------------------|-----|-----|-----|-----|-----|
| 55230                        | 18% | 0%  | 1%  | 2%  | 17% |
| 55250                        | 65% | 65% | 40% | 20% | 50% |
| 55270                        | 18% | 35% | 59% | 78% | 33% |

| AVERAGE PAYGRADE              | E-4 | E-5 | E-6 | E-6 | E-5 |
|-------------------------------|-----|-----|-----|-----|-----|
| AVERAGE MONTHS IN PRESENT JOB | 45  | 38  | 38  | 36  | 36  |
| AVERAGE T1CF (MOS)            | 68  | 136 | 130 | 140 | 98  |
| AVERAGE TAFMS (MOS)           | 80  | 167 | 158 | 174 | 100 |

| PERCENT IN FIRST ENLISTMENT       | 35% | 6%  | 7%  | 3%  | 50% |
|-----------------------------------|-----|-----|-----|-----|-----|
| PERCENT SUPERVISING               | 40% | 35% | 34% | 86% | 17% |
| AVERAGE NUMBER OF TASKS PERFORMED | 233 | 58  | 48  | 124 | 19  |

\* Denotes less than 1 percent

additional 22 percent of their relative duty activity is spent installing and maintaining interior and exterior finishings. Representative tasks for this group include:

- installing studs
- cutting studs
- installing cripples
- constructing interior partitions
- constructing headers and cripples
- laying out studs
- constructing door or window openings
- installing top plates
- erecting interior partitions
- constructing partition studs
- installing headers
- installing double-top plates
- installing or replacing gypsum boards
- installing or replacing suspended ceilings
- installing or replacing door hinges
- installing or replacing door closers

Twenty-two percent of the group is located overseas. Overall, they have an average TAFMS of 4 years and are predominately in paygrade E-3.

III. INTERIOR CARPENTRY CLUSTER (ST125). These personnel perform a wide variety of carpentry tasks on previously completed structures. They can be found installing or repairing building components, such as doors, windows, and ceilings. The 262 members of this group perform an average of 116 tasks. Some examples of tasks performed by interior carpentry personnel are:

- installing and replacing door hinges
- installing or replacing door closers
- adjusting door closer components
- cutting glass to specific dimensions
- cutting plexiglass to specific dimensions
- installing or replacing door closer components
- installing or replacing door jams or stops
- adjusting hardtools
- installing or replacing suspended ceilings
- installing or replacing gypsum boards

Almost 6 years is the average TAFMS for personnel in this job. Fifty-seven percent are 5-skill-level qualified, while only 10 percent hold an AFSC 55270 skill level.

IV. FRAMING AND INTERIOR CARPENTRY CLUSTER (ST0180). These 451 members form the largest group, representing 30 percent of the total survey sample. While framing and construction tasks, such as lay out, cut, and install studs; and construct partition studs, make up the largest part of this job, the Framing and Interior Carpentry personnel also perform interior work, such as maintaining and installing ceilings, doors, and windows. Personnel in this job perform a very large job averaging 285 tasks. Tasks most commonly performed include:

- installing or replacing door hinges
- cutting studs
- installing or replacing suspended ceilings
- installing studs
- installing or replacing door jams or stops
- adjusting door closer components
- installing or replacing door closers
- installing or replacing gypsum boards
- laying out studs
- constructing door or window openings
- cut plexiglass to specific dimensions

These people average just over 7 years TAFMS. Sixty-five percent are DAFSC 55250 personnel, while 19 percent are 7-skill-level qualified in the career ladder. These personnel have the most months in their present job (49).

V. LOCKSMITHS CLUSTER (ST0397). This group of 48 airmen spend 57 percent of their relative job time installing, maintaining, repairing, and replacing a wide variety of locking and security devices. In addition to working on standard key-lock units, they also work on cipher and combination locks. Examples of common tasks include:

- adjusting door locks
- adjusting panic hardware
- installing or replacing door locks
- maintaining door locks
- duplicating keys with code key machines
- replacing door lock knobs, cylinders, or cylinder housings
- extracting broken keys from locks
- installing or replacing cipher locks
- repining interchangeable core locks
- cleaning locks
- replacing worn or damaged parts in door locks

This job is comprised largely of 5-skill-level personnel (58 percent). Approximately 31 percent of the group are located overseas. Overall, they have an average TAFMS of nearly 8 years and are predominantly in paygrade E-4.

VI. CONCRETE AND MASONRY CONSTRUCTION CLUSTER (ST0195). Members of this cluster primarily perform tasks associated with concrete. They are responsible for edging, floating, and finishing concrete with handtools, constructing slab forms, and placing reinforcing steel in forms. These members perform an average of 233 tasks, some of which include:

- floating concrete
- mixing mortar by hand
- transporting concrete by wheelbarrows
- screeding concrete
- finishing concrete with handtools
- edging concrete
- placing concrete in forms
- cleaning handtools
- removing wooden or metal forms
- drilling holes in concrete with electric drills
- drilling holes with hammer drills
- spreading level checks of block, brick, or structural tile
- construction with levels

This job contains individuals averaging 6 1/2 years TAFMS with 65 percent 5-skill-level qualified. The majority of these airmen hold a paygrade of E-4.

VII. SUPPLY CLUSTER (ST0124). With an average of nearly 14 years TAFMS, the 17 members of this cluster devote 31 percent of their time performing supply and equipment functions. These members perform an average of 58 tasks. Representative tasks performed by this group include:

- inventorying equipment, tools, or supplies other than composite tool kits (CTKs)
- issuing nonaccountable supplies
- evaluating serviceability of supplies or equipment
- evaluating equipment storage procedures
- monitoring shop stock levels
- coordinating procurement of parts or materials with base supply

VIII. PLANNERS CLUSTER (ST0083). The 88 members of this cluster are responsible for preparing plans for masonry or carpentry projects and planning construction layouts. They are also responsible for estimating costs involved

with assigned projects, determining the methods which will be utilized on the project, and ensuring compliance with required standards. Members perform an average of 48 tasks. Common tasks include:

- estimating quantities of materials required for carpentry projects
- estimating cost of materials
- establishing types of materials required for carpentry projects
- sketching working drawings
- ordering materials
- establishing quantities of materials required for masonry projects
- interpreting carpentry construction drawings
- establishing types of materials required for masonry projects
- coordinating site planning with project requesters

The majority of the members hold a 7-skill-level DAFSC and have almost 11 years in the career field. With slightly over 13 years of TAFMS, these members are predominantly in paygrade E-6.

IX. SUPERVISORS CLUSTER (ST0119). The 148 members of this cluster spend 48 percent of their duty time in the 4 management and administrative duties (Duties A through E). Job titles given by respondents which were representative of these personnel included NCOIC, Foreman, and Superintendent. Of the average 124 tasks these personnel perform, characteristic tasks include:

- correcting safety hazards
- counseling personnel on personal or military-related matters
- determining requirements for equipment, space, or supplies
- conducting briefings, other than for training
- evaluating personnel for compliance with work standards
- writing EPRs
- coordinating work requests with other civil engineering activities
- participating in staff meetings
- scheduling TDY, leaves, or passes
- preparing work schedules

Members in this group predominantly hold a 7-skill-level, are in paygrade E-6, and average 14 1/2 years of TAFMS.

X. PRIME BEEF IJT (ST0238). The six members of this independent job spend 84 percent of their relative job time performing prime beef functions. With slightly over 8 years in the career field, the average grade is E-5. Some of the most representative tasks performed by members of this job include:

- donning or doffing chemical-warfare personal protective clothing
- firing M-16 rifles for qualification
- assembling AM-2 matting for rapid runway repairs
- preparing personal clothing and equipment for deployment
- maintaining M17 gas masks
- tearing down, inspecting, cleaning, and reassembling M-16 rifles
- practicing COMSEC or OPSEC during contingency exercises or operations
- erecting hardback tents
- erecting camouflage netting

#### Comparison of Current Group Descriptions to Previous Study

The results of the specialty job analysis were compared to the previous Occupational Survey Report, AFPT 90-552-513 and AFPT 90-552-514, dated January 1985, for AFSCs 552X0 and 552X1 career ladders. The Carpentry (AFSC 552X0) and Masonry (AFSC 552X1) specialties were surveyed together.

Table 5 lists the major jobs identified in the 1991 survey and their equivalent jobs from the 1985 OSR. A review of the jobs performed by the current sample indicates that most of the 1991 job groups can be matched to similar jobs performed by job groups identified in the 1985 reports.

The identified career ladder structure for the AFSC 552X0 career ladder in the present survey was similar to that of 1985, indicating the types of jobs which existed in 1985 have remained relatively unchanged through the years. This holds true even with the merger of the Carpentry and Masonry career ladders in 1987. In both analyses, Supervisors, Planners, Masonry Personnel, Exterior and Interior Carpenters, and Framers were identified. The job performed by the Roofing personnel in the previous study is now done by the Framing and Interior Carpentry cluster.

#### ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career

TABLE 5

## JOB SPECIALTY COMPARISONS BETWEEN CURRENT AND 1985 SURVEY

| CURRENT SURVEY (N=1,502) |   | PERCENT OF<br>SAMPLE | 1985 SURVEY (N=2,189)                                 | PERCENT OF<br>SAMPLE |
|--------------------------|---|----------------------|---|----------------------|
| 1                        | INTERIOR FINISHERS IJT (N=11)                           | 1                    | 1 CARPENTRY CLUSTER (N=1,245)<br>A BUILDING FRAMERS   | 57                   |
| 2                        | FRAMERS CLUSTER (N=51)                                  | 3                    | B INTERIOR AND EXTERIOR<br>FINISHINGS PERSONNEL       |                      |
| 3                        | INTERIOR CARPENTRY CLUSTER<br>(N=262)                   | 17                   | C STRUCTURAL MAINTENANCE AND<br>REPAIR TEAM           |                      |
| 4                        | FRAMING & INTERIOR CARPENTRY<br>CLUSTER (N=451)         | 30                   | D LOCKSMITHS  |                      |
| 5                        | LOCKSMITHS CLUSTER (N=48)                               | 3                    | 2 ROOFING PERSONNEL (N=38)                            | 2                    |
| 6                        | CONCRETE AND MASONRY<br>CONSTRUCTION<br>CLUSTER (N=148) | 10                   | 3 MASONRY PERSONNEL (N=313)                           | 14                   |
| 7                        | SUPERVISORS CLUSTER (N=148)                             | 10                   | 4 SUPERVISORS AND ADMINISTRATIVE<br>PERSONNEL (N=195) | 9                    |
| 8                        | SUPPLY CLUSTER (N=27)                                   | 1                    |   |                      |
| 9                        | PLANNERS CLUSTER (N=88)                                 | 6                    | 5 STRUCTURAL PLANNERS (N=69)                          | 3                    |
| 10                       | PRIME BEEF IJT (N=6)                                    | *                    | 6 NOT IDENTIFIED                                      | -                    |
| 11                       | NOT IDENTIFIED  | -                    | 7 SHOP PERSONNEL (N=69)                               | 3                    |

\* Denotes less than 1 percent

ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS), reflect what career ladder personnel are actually doing in the field.

A comparison of the duty and task performance between DAFSCs 55230 and 55250 indicates that, while there are some minor differences, by and large, the jobs they perform are essentially the same. Therefore, they will be discussed as a combined group in this report. Nine-skill-level and CEM code personnel in the 552XX career field were not surveyed and will not be discussed in this report.

The distribution of skill-level groups across the career ladder jobs is displayed in Table 6, while Table 7 offers another perspective by displaying the relative percent time spent on each duty across the skill-level groups.

A typical pattern of progression is noted within the AFSC 552X0 career ladder, with personnel at the lower skill levels spending most of their time on technical tasks. More relative time is spent on duties involving supervisory, managerial, and administrative tasks (see Table 7, Duties A, B, C, D, and E) as they move upward to the 7-skill-level. It is also obvious, however, that 7-skill-level personnel are still involved with technical task performance, as will be pointed out in the specific skill-level group discussions below.

#### Skill Level Descriptions

DAFSC 55230/50. The 1,100 airmen in the 3- and 5-skill-level group (representing 73 percent of the survey sample) perform an average of 168 tasks, with 136 tasks accounting for approximately 50 percent of their time. As shown in Table 6, these airmen are largely concentrated within the Interior Carpentry cluster (22 percent), the Framing and Interior Carpentry cluster (33 percent), and the Concrete and Masonry Construction cluster (11 percent). Approximately 19 percent of their time is spent installing and maintaining interior and exterior finishings, while 14 percent of their time is spent framing buildings (see Table 7).

Examples of tasks likely to be performed by 3- and 5-skill-level personnel include: installing and replacing door closers, door hinges, suspended ceilings, and gypsum boards. Table 8 displays selected representative tasks performed by a majority of these airmen, and Table 9 shows tasks which best differentiate 3- and 5-skill-level personnel from 7-skill-level members.

DAFSC 55270. Seven-skill-level personnel, representing 27 percent of the survey sample, perform an average of 153 tasks, with 112 tasks accounting for 50 percent of their relative job time. Thirty-two percent of their relative job time is spent on tasks in the supervisory, managerial, training, and administrative duties (see Table 7). In addition, they also spend considerable time performing technical duties. Examples of tasks performed by this group include: interpreting carpentry construction drawings, ordering material, sketching working drawings, and writing EPRs. A more complete listing

TABLE 6  
DISTRIBUTION OF SKILL-LEVEL PERSONNEL  
ACROSS CAREER LADDER JOBS

| JOBS                                   | DAFSC 55230/55250<br>(N=1,100) |         | DAFSC 55270<br>(N=401) |         |
|--|--------------------------------|---------|------------------------|---------|
|  | NUMBER                         | PERCENT | NUMBER                 | PERCENT |
| 1 INTERIOR FINISHERS                   | 9                              | 1%      | 2                      | *       |
| 2 FRAMERS                              | 49                             | 5%      | 2                      | *       |
| 3 INTERIOR CARPENTRY                   | 236                            | 22%     | 26                     | 6%      |
| 4 FRAMING AND INTERIOR CARPENTRY       | 365                            | 33%     | 86                     | 21%     |
| 5 CONCRETE AND MASONRY<br>CONSTRUCTION | 122                            | 11%     | 27                     | 7%      |
| 6 LOCKSMITHS                           | 36                             | 3%      | 12                     | 3%      |
| 7 SUPPLY                               | 11                             | 1%      | 6                      | 1%      |
| 8 PLANNERS                             | 36                             | 3%      | 88                     | 22%     |
| 9 SUPERVISORS                          | 33                             | 3%      | 115                    | 29%     |
| 10 PRIME BEEF                          | 4                              | *       | 2                      | *       |
| 11 NOT GROUPED                         | 200                            | 18%     | 35                     | 9%      |

\* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 7  
RELATIVE PERCENT TIME SPENT PERFORMING  
DUTIES BY DAFSC GROUPS

| DUTIES   | DAFSC<br>55230/55250<br>(N=1,100) | DAFSC<br>55270<br>(N=401) |
|--|-----------------------------------|---------------------------|
| A. ORGANIZING AND PLANNING                                     | 2                                 | 7                         |
| B. DIRECTING AND IMPLEMENTING                                  | 2                                 | 8                         |
| C. INSPECTING AND EVALUATING                                   | 2                                 | 8                         |
| D. TRAINING  | 1                                 | 4                         |
| E. PERFORMING ADMINISTRATIVE FUNCTIONS                         | 2                                 | 5                         |
| F. PERFORMING SUPPLY AND EQUIPMENT FUNCTIONS                   | 2                                 | 6                         |
| G. PREPARING PROJECT PLANNING AND CONSTRUCTION LAYOUT          | 3                                 | 10                        |
| H. CONSTRUCTING WOOD OR METAL FORMS FOR CONCRETE               | 3                                 | 2                         |
| I. CONSTRUCTING AND MAINTAINING CONCRETE STRUCTURES            | 7                                 | 3                         |
| J. FRAMING BUILDINGS   | 14                                | 7                         |
| K. INSTALLING AND MAINTAINING INTERIOR AND EXTERIOR FINISHINGS | 19                                | 8                         |
| L. CONSTRUCTING AND MAINTAINING INTERIOR FURNISHINGS           | 4                                 | 2                         |
| M. CONSTRUCTING AND MAINTAINING LOW-SLOPE ROOFING SYSTEMS      | 2                                 | 1                         |
| N. PREPARING MORTAR, CONCRETE, STUCCO, AND PLASTER             | 2                                 | 1                         |
| O. APPLYING AND MAINTAINING PLASTER AND STUCCO                 | 2                                 | 1                         |
| P. CONSTRUCTING AND MAINTAINING MASONRY STRUCTURES             | 3                                 | 1                         |
| Q. SETTING AND REPLACING CERAMIC AND QUARRY TILE               | 3                                 | 2                         |
| R. PERFORMING STONE MAINTENANCE AND CONSTRUCTION               | *                                 | *                         |
| S. MAINTAINING HANDTOOLS AND POWER EQUIPMENT                   | 8                                 | 5                         |
| T. CONSTRUCTING AND MAINTAINING PREFABRICATED BUILDINGS        | *                                 | *                         |
| U. INSTALLING AND MAINTAINING LOCKING DEVICES                  | 6                                 | 3                         |
| V. PERFORMING HEAVY TIMBER CONSTRUCTION                        | *                                 | *                         |
| W. CONSTRUCTING AND MAINTAINING TRAINING AIDS OR EXHIBITS      | *                                 | *                         |
| X. PACKING AND CRATING   | *                                 | *                         |
| Y. PERFORMING PRIME BEEF FUNCTIONS                             | 14                                | 15                        |

\* Denotes less than 1 percent

TABLE 8  
REPRESENTATIVE TASKS PERFORMED BY DAFSC 55230/55250  
SKILL-LEVEL PERSONNEL

| TASKS  | PERCENT<br>MEMBERS<br>PERFORMING |
|--|----------------------------------|
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION                        | 80                               |
| Y780 CLEAN HANDTOOLS   | 78                               |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES    | 76                               |
| K452 INSTALL OR REPLACE DOOR CLOSERS                           | 73                               |
| K419 ADJUST DOOR CLOSER COMPONENTS                             | 70                               |
| S777 ADJUST HANDTOOLS  | 70                               |
| S783 INSPECT HANDTOOLS   | 69                               |
| K451 INSTALL OR REPLACE DOOR HINGES                            | 68                               |
| Y951 ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS            | 68                               |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING | 68                               |
| K486 INSTALL OR REPLACE SUSPENDED CEILINGS                     | 67                               |
| K462 INSTALL OR REPLACE GYPSUM BOARDS                          | 67                               |
| J302 CUT STUDS   | 67                               |
| K433 CUT PLEXIGLASS TO SPECIFIC DIMENSIONS                     | 67                               |
| K453 INSTALL OR REPLACE DOOR JAMBS OR STOPS                    | 66                               |
| K424 CAULK WINDOWS, SINKS, OR BATHTUBS                         | 64                               |
| S782 CLEAN SHOP-INSTALLED POWER EQUIPMENT                      | 64                               |
| K431 CUT GLASS TO SPECIFIC DIMENSIONS                          | 64                               |
| K438 INSTALL ASPHALT OR VINYL FLOOR TILES                      | 62                               |
| K450 INSTALL OR REPLACE DOOR CLOSER COMPONENTS                 | 61                               |
| S792 SHAPE AND SHARPEN HANDTOOLS                               | 61                               |
| S786 LUBRICATE HANDTOOLS                                       | 60                               |
| K464 INSTALL OR REPLACE HOLLOW OR SOLID-CORE DOORS             | 60                               |

TABLE 9

REPRESENTATIVE TASK DIFFERENCES BETWEEN  
DAFSC 55230/55250 AND DAFSC 55270 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

| TASKS   | DAFSC<br>55230/55250<br>(N=1,100) | DAFSC<br>55270<br>(N=401) | DIFF |
|---|-----------------------------------|---------------------------|------|
| K424 CAULK WINDOWS, SINKS, OR BATHTUBS                                  | 64                                | 31                        | 33   |
| K452 INSTALL OR REPLACE DOOR HINGES                                     | 73                                | 40                        | 33   |
| K419 ADJUST DOOR CLOSER COMPONENTS                                      | 70                                | 37                        | 33   |
| K451 INSTALL OR REPLACE DOOR CLOSERS                                    | 68                                | 37                        | 31   |
| J302 CUT STUDS  | 67                                | 36                        | 31   |
| K462 INSTALL OR REPLACE GYPSUM BOARDS                                   | 67                                | 36                        | 30   |
| S780 CLEAN HANDTOOLS  | 78                                | 49                        | 29   |
| K453 INSTALL OR REPLACE DOOR JAMBS OR STOPS                             | 66                                | 37                        | 29   |
| K450 INSTALL OR REPLACE DOOR CLOSER COMPONENTS                          | 61                                | 32                        | 29   |
| K433 CUT PLEXIGLASS TO SPECIFIC DIMENSIONS                              | 67                                | 38                        | 29   |
| -----   |                                   |                           |      |
| C73 WRITE EPRs  | 25                                | 68                        | -43  |
| B26 COUNSEL PERSONNEL ON PERSONAL OR<br>MILITARY-RELATED MATTERS        | 28                                | 66                        | -39  |
| B44 SUPERVISE STRUCTURAL SPECIALISTS<br>(AFSC 55250)                    | 21                                | 59                        | -38  |
| A3 CONDUCT BRIEFINGS, OTHER THAN FOR<br>TRAINING                        | 20                                | 56                        | -36  |
| A6 COORDINATE WORK REQUESTS WITH OTHER CIVIL<br>'ENGINEERING ACTIVITIES | 22                                | 57                        | -35  |
| A21 PREPARE WORK SCHEDULES  | 13                                | 47                        | -34  |
| B39 PARTICIPATE IN STAFF MEETINGS                                       | 12                                | 47                        | -34  |
| A22 SCHEDULE TDY, LEAVES, OR PASSES                                     | 10                                | 45                        | -34  |
| C59 EVALUATE PERSONNEL FOR COMPLIANCE WITH<br>WORK STANDARDS            | 14                                | 48                        | -34  |
| A15 ESTABLISH PERFORMANCE STANDARDS FOR<br>SUBORDINATES                 | 14                                | 47                        | -32  |
| A9 DETERMINE REQUIREMENT FOR EQUIPMENT,<br>SPACE, OR SUPPLIES           | 19                                | 51                        | -32  |
| G178 ESTIMATE COST OF MATERIALS   | 18                                | 49                        | -32  |
| C66 INDORSE ENLISTED PERFORMANCE REPORTS                                | 9                                 | 39                        | -31  |

of representative tasks for these incumbents can be found in Table 10. While the display of tasks in Table 10 clearly shows these senior personnel are responsible for supervision in the shops, it also reflects the range and scope of the job, in that relatively high percentages of the group are also performing a wide variety of day-to-day structural tasks.

Tasks which best distinguish the 7-skill-level personnel from their junior counterparts are presented in Table 9. As expected, the key difference is a greater emphasis on supervisory functions for 7-skill-level airmen. Examples of tasks with the greatest difference in members performing include: write EPRs, counsel personnel on personal or military-related matters, and supervise Structural Specialists (AFSC 55250).

### Summary

Normal career ladder progression within the AFSC 552X0 career ladder is evident, with personnel at the 3- and 5-skill-levels spending the vast majority of their job time performing technical tasks. At the 7-skill-level, although members still spend 65 percent their relative duty time on structural functions, a shift toward supervisory functions is quite clear.

## ANALYSIS OF AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data were compared to the AFR 39-1 Specialty Descriptions for Structural Specialists and Technicians, dated 1 February 1988.

The descriptions for the 3-, 5-, and 7-skill-levels were accurate, depicting the highly technical aspect of the job, as well as the increase in supervisory responsibilities previously described in the DAFSC analysis. The descriptions also capture the primary responsibilities of members in the 10 jobs identified by the job structure analysis process.

## TRAINING ANALYSIS

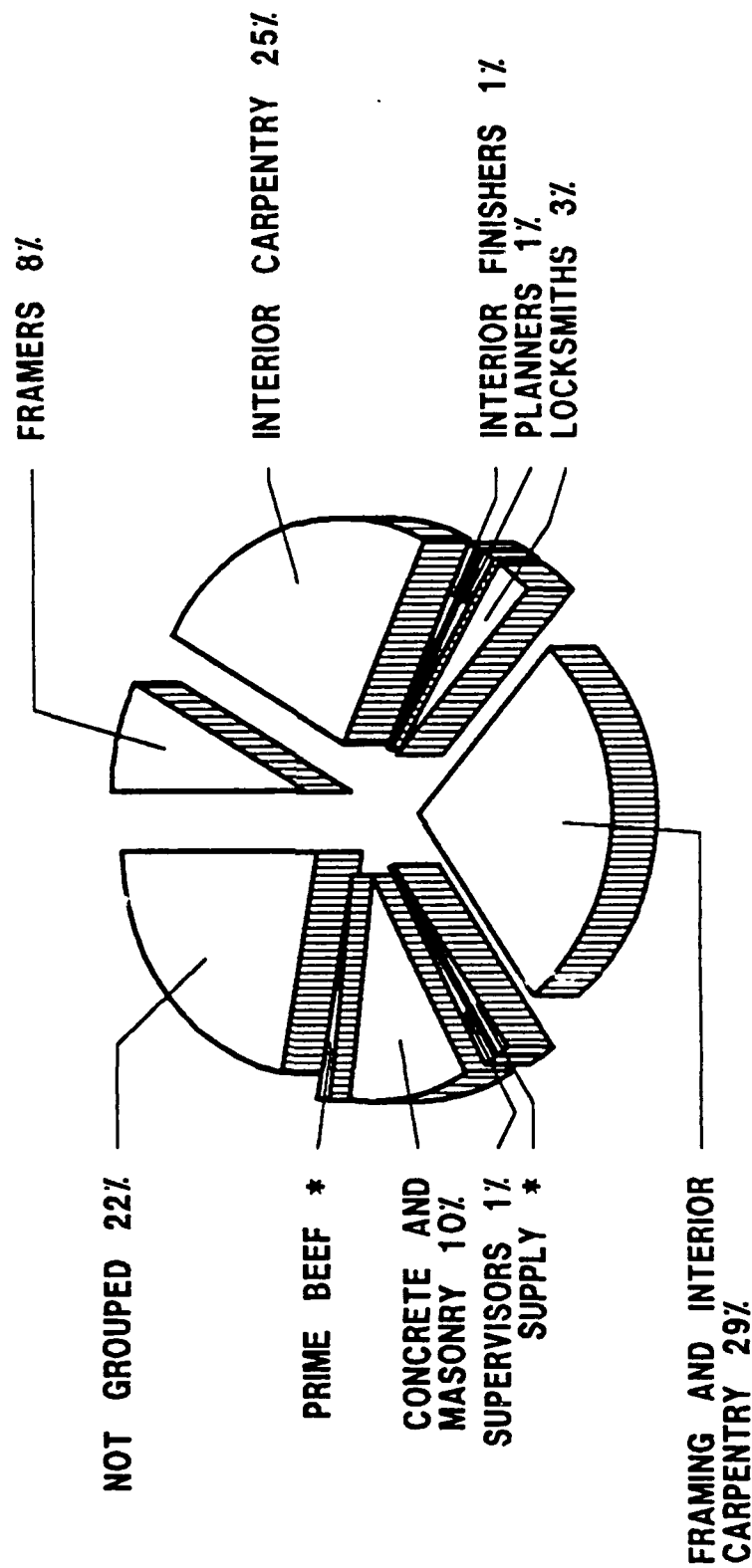
Occupational survey data represent one of many sources of information which can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment. Factors which may be used in evaluating training include the overall description of the job being performed by first-enlistment personnel and their overall distribution across career ladder jobs, percentages of first-job (1-24 month TAFMS) or first-enlistment (1-48 months TAFMS) members performing specific tasks or using certain equipment or materials, as well as training emphasis and task difficulty ratings (previously explained in the SURVEY METHODOLOGY section).

TABLE 10

REPRESENTATIVE TASKS PERFORMED BY DAFSC 55270  
SKILL-LEVEL PERSONNEL

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING<br>(N=401) |
|---|---|
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION   | 76  |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING  | 69  |
| C73 WRITE EPRs  | 68  |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES   | 67  |
| B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS   | 66  |
| G183 INTERPRET CARPENTRY CONSTRUCTION DRAWINGS  | 65  |
| G175 ESTABLISH TYPES OF MATERIALS REQUIRED FOR CARPENTRY<br>PROJECTS  | 65  |
| G180 ESTIMATE QUANTITIES OF MATERIALS REQUIRED FOR CARPENTRY<br>PROJECTS                                      | 65  |
| B25 CORRECT SAFETY HAZARDS  | 64  |
| G185 ORDER MATERIALS  | 62  |
| Y991 MAINTAIN PERSONAL DOCUMENTATION, SUCH AS SHOT RECORDS, DOG<br>TAGS, OR MILITARY IDENTIFICATION (ID) TAGS | 60  |
| C65 IDENTIFY SAFETY HAZARDS   | 60  |
| G186 SKETCH WORKING DRAWINGS  | 60  |
| B44 SUPERVISE STRUCTURAL SPECIALISTS (AFSC 55250)   | 59  |
| Y951 ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS   | 59  |
| Y990 MAINTAIN M-17 GAS MASKS  | 58  |
| A6 COORDINATE WORK REQUESTS WITH OTHER CIVIL ENGINEERING<br>ACTIVITIES  | 57  |
| A3 CONDUCT BRIEFINGS, OTHER THAN FOR TRAINING   | 56  |
| F140 COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)   | 55  |
| S783 INSPECT HANDTOOLS  | 54  |
| Y965 ERECT TENTS, OTHER THAN HARDBACK TENTS   | 54  |
| G181 ESTIMATE QUANTITIES OF MATERIALS REQUIRED FOR MASONRY<br>PROJECTS  | 54  |
| G176 ESTABLISH TYPES OF MATERIALS REQUIRED FOR MASONRY PROJECTS   | 54  |
| G184 INTERPRET MASONRY CONSTRUCTION DRAWINGS  | 54  |
| Y963 ERECT HARDBACK TENTS   | 53  |

# FIRST-ASSIGNMENT AFSC 552X0 CAREER LADDER JOBS



\* Less than 1 percent

Figure 2

### First-Enlistment Personnel

In this study, there are 502 members in their first enlistment (1-48 months TAFMS), representing one-third (33 percent) of the survey sample. The job performed by these personnel is highly technical in nature and covers the full range of Structural technical activities. As displayed in Table 11, approximately 96 percent of the 552X0 personnel duty time is devoted to technical or administrative task performance. Distribution of these personnel across career ladder jobs is displayed in Figure 2, which shows the vast majority of first-term personnel are involved in day-to-day Structural activities. Table 12 displays just some of the tasks performed by the various first-enlistment groups and is intended to represent the full range of tasks performed by first-term personnel across various types of general maintenance activities.

### Training Emphasis (TE) and Task Difficulty (TD) Data

Training emphasis (TE) and task difficulty (TD) data are secondary factors that can assist technical school personnel in deciding what tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks considered important for first-term airman training (TE), along with a measure of the difficulty of those tasks (TD). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-term personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

To help in this determination, an Automated Training Indicator (ATI) is computed for each task in the inventory. ATI combines first-enlistment percent members performing, TE, and TD data to compute training decisions based on ATCR 52-22, Atch 1. The computed ATI is numbered 1 to 18, with an 18 being the highest level of training indicated. An ATI of 8 or less leads to a training decision of OJT only. To illustrate how the ATI is computed, if a task has received high TE and TD ratings, and also has a high percentage of first-term members performing, then a high rating is assigned to the task. With a high ATI rating, strong recommendations can be made to emphasize training the task in a resident training course.

Tasks having the highest TE ratings are listed in Table 13. Included for each task are the percentage of first-job and first-enlistment personnel performing and the TD rating. As illustrated in Table 13, these tasks pertain to a variety of technical functions within the specialty. A majority of these

TABLE 11  
RELATIVE TIME SPENT ON DUTIES BY  
FIRST-ENLISTMENT PERSONNEL  
(N=502)

| <u>DUTIES</u>   | <u>PERCENT<br/>TIME SPENT</u> |
|---|-------------------------------|
| A. ORGANIZING AND PLANNING  | 1                             |
| B. DIRECTING AND IMPLEMENTING                                     | 1                             |
| C. INSPECTING AND EVALUATING                                      | 1                             |
| D. TRAINING   | *                             |
| E. PERFORMING ADMINISTRATIVE FUNCTIONS                            | 1                             |
| F. PERFORMING SUPPLY AND EQUIPMENT FUNCTIONS                      | 1                             |
| G. PREPARING PROJECT PLANNING AND CONSTRUCTION LAYOUT             | 2                             |
| H. CONSTRUCTING WOOD OR METAL FORMS FOR CONCRETE                  | 3                             |
| I. CONSTRUCTING AND MAINTAINING CONCRETE STRUCTURES               | 8                             |
| J. FRAMING BUILDINGS  | 16                            |
| K. INSTALLING AND MAINTAINING INTERIOR AND EXTERIOR<br>FINISHINGS | 22                            |
| L. CONSTRUCTING AND MAINTAINING INTERIOR FURNISHINGS              | 4                             |
| M. CONSTRUCTING AND MAINTAINING LOW-SLOPE ROOFING SYSTEMS         | 2                             |
| N. PREPARING MORTAR, CONCRETE, STUCCO, PLASTER AND STUCCO         | 2                             |
| O. APPLYING AND MAINTAINING PLASTER AND STUCCO                    | 2                             |
| P. CONSTRUCTING AND MAINTAINING MASONRY STRUCTURES                | 3                             |
| Q. SETTING AND REPLACING CERAMIC AND QUARRY TILES                 | 3                             |
| R. PERFORMING STONE MAINTENANCE AND CONSTRUCTION                  | *                             |
| S. MAINTAINING HANDTOOLS AND POWER EQUIPMENT                      | 9                             |
| T. CONSTRUCTING AND MAINTAINING PREFABRICATED BUILDINGS           | *                             |
| U. INSTALLING AND MAINTAINING LOCKING DEVICES                     | 6                             |
| V. PERFORMING HEAVY TIMBER CONSTRUCTION                           | *                             |
| W. CONSTRUCTING AND MAINTAINING TRAINING AIDS OR EXHIBITS         | *                             |
| X. PACKING AND CRATING  | *                             |
| Y. PERFORMING PRIME BEEF PROGRAM FUNCTIONS                        | 12                            |

\* Denotes less than 1 percent

TABLE 12  
REPRESENTATIVE TASKS PERFORMED  
BY 552X0 FIRST-ENLISTMENT PERSONNEL

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING<br>(N=502) |
|---|---|
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION   | 78  |
| S780 CLEAN HANDTOOLS  | 77  |
| K452 INSTALL OR REPLACE DOOR HINGES   | 75  |
| K419 ADJUST DOOR CLOSER COMPONENTS  | 73  |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES   | 73  |
| S777 ADJUST HANDTOOLS   | 71  |
| J302 CUT STUDS  | 71  |
| K451 INSTALL OR REPLACE DOOR CLOSERS  | 70  |
| K462 INSTALL OR REPLACE GYPSUM BOARDS   | 70  |
| K424 CAULK WINDOWS, SINKS, OR BATHTUBS  | 67  |
| K431 CUT GLASS TO SPECIFIC DIMENSIONS   | 66  |
| K453 INSTALL OR REPLACE DOOR JAMBS OR STOPS   | 66  |
| K433 CUT PLEXIGLASS TO SPECIFIC DIMENSIONS  | 66  |
| K486 INSTALL OR REPLACE SUSPENDED CEILINGS  | 66  |
| S782 CLEAN SHOP-INSTALLED POWER EQUIPMENT   | 65  |
| K450 INSTALL OR REPLACE DOOR CLOSER COMPONENTS  | 65  |
| S783 INSPECT HANDTOOLS  | 65  |
| Y951 ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS   | 63  |
| J341 INSTALL STUDS  | 62  |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING  | 59  |
| H209 DRILL HOLES WITH HAMMER DRILLS   | 59  |
| K464 INSTALL OR REPLACE HOLLOW OR SOLID-CORE DCORS  | 57  |
| S778 ADJUST PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS  | 57  |
| S792 SHAPE AND SHARPEN HANDTOOLS  | 57  |
| K518 REPAIR HOLES IN GYPSUM BOARD   | 56  |
| Y991 MAINTAIN PERSONAL DOCUMENTATION, SUCH AS SHOT RECORDS,<br>DOG TAGS, OR MILITARY IDENTIFICATION (ID) TAGS | 53  |

TABLE 13

TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)  
AFSC 552X0

| TASKS   | TNG<br>EMPH* | PERCENT<br>MEMBERS PERFORMING |                    | TASK<br>DIFF** |
|---|--------------|-------------------------------|--------------------|----------------|
|   |              | 1ST JOB<br>(N=275)            | 1ST ENL<br>(N=502) |                |
| K486 INSTALL OR REPLACE SUSPENDED CEILINGS              | 6.62         | 61                            | 66                 | 5.16           |
| K464 INSTALL OR REPLACE HOLLOW OR SOLID-CORE DOORS      | 6.55         | 52                            | 57                 | 4.64           |
| K453 INSTALL OR REPLACE DOOR JAMBS OR STOPS             | 6.17         | 57                            | 66                 | 4.45           |
| J295 CONSTRUCT INTERIOR PARTITIONS                      | 6.11         | 38                            | 49                 | 4.41           |
| J296 CONSTRUCT PARTITION STUDS                          | 6.06         | 41                            | 49                 | 4.00           |
| J341 INSTALL STUDS                                      | 6.02         | 59                            | 62                 | 3.78           |
| J292 CONSTRUCT DOOR OR WINDOW OPENINGS                  | 5.97         | 50                            | 58                 | 5.02           |
| K462 INSTALL OR REPLACE GYPSUM BOARDS                   | 5.97         | 66                            | 70                 | 3.86           |
| J324 INSTALL OR REPLACE DOOR OR WINDOW UNITS            | 5.95         | 50                            | 56                 | 5.56           |
| J358 LAY OUT DOOR OR WINDOW OPENINGS                    | 5.95         | 44                            | 47                 | 5.49           |
| K438 INSTALL ASPHALT OR VINYL FLOOR TILES               | 5.95         | 51                            | 60                 | 4.11           |
| G183 INTERPRET CARPENTRY CONSTRUCTION DRAWINGS          | 5.94         | 21                            | 30                 | 5.70           |
| K441 INSTALL OR REPLACE ASPHALT ROOFING SHINGLES        | 5.94         | 33                            | 37                 | 4.98           |
| K520 REPLACE ASPHALT OR VINYL FLOOR TILES               | 5.92         | 25                            | 34                 | 3.93           |
| J304 ERECT INTERIOR PARTITIONS                          | 5.91         | 45                            | 54                 | 3.83           |
| S784 INSPECT PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS | 5.88         | 42                            | 48                 | 3.51           |
| S781 CLEAN PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS   | 5.86         | 51                            | 55                 | 3.18           |
| G184 INTERPRET MASONRY CONSTRUCTION DRAWINGS            | 5.85         | 11                            | 15                 | 5.87           |
| K452 INSTALL OR REPLACE DOOR HINGES                     | 5.85         | 72                            | 75                 | 3.65           |
| S782 CLEAN SHOP-INSTALLED POWER TOOLS                   | 5.85         | 66                            | 65                 | 3.45           |
| S783 INSPECT HANDTOOLS                                  | 5.85         | 60                            | 65                 | 2.82           |
| J368 LAY OUT PARTITION STUDS                            | 5.83         | 31                            | 37                 | 4.42           |
| K518 REPAIR HOLES IN GYPSUM BOARDS                      | 5.83         | 51                            | 56                 | 4.04           |
| J303 ERECT EXTERIOR WALLS                               | 5.82         | 36                            | 41                 | 4.20           |
| J382 LAY OUT STUDS                                      | 5.82         | 55                            | 55                 | 4.33           |
| J309 INSTALL COMMON RAFTERS                             | 5.80         | 27                            | 34                 | 4.81           |
| S780 CLEAN HANDTOOLS                                    | 5.78         | 76                            | 77                 | 2.53           |

\* Training Emphasis has an average of 2.89 and a standard deviation of 2.51 (High TE=5.40)

\*\* Average Task Difficulty rating is 5.00, and the standard deviation is 1.00

tasks fall into the Installing and Maintaining Interior and Exterior Finishings Category and the Framing Buildings category. In addition, these tasks are performed by substantial percentages of first-enlistment personnel and have average to high TD ratings.

Table 14 lists the tasks having the highest TD ratings. The percentage of first-enlistment, 5-, and 7-skill-level personnel performing, and the TE ratings are also included for each task. Most of these tasks relate to Locksmith duties. Most of these tasks are not performed by many airmen and have low TE ratings.

Various lists of tasks, accompanied by TE and TD ratings, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the SURVEY METHODOLOGY section of this report.)

### Specialty Training Standard (STS)

A comprehensive review of STS 552X0 was made by comparing survey data to STS elements. To assist specifically in the examination of the STS, technical school personnel from Sheppard Technical Training Center matched job inventory tasks to appropriate sections and subsections of the STS. It was this matching upon which comparison to this document was based. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS matchings, has been forwarded to the technical school for their use in further detailed reviews of training documents. STS elements with performance objectives were reviewed in terms of training emphasis, TD, and percent members performing information as stipulated in ATCR 52-22, dated February 1989. STS paragraphs containing general knowledge information, subject-matter knowledge requirements, or supervisory responsibilities were not reviewed. Typically, tasks performed by 20 percent or more of personnel in appropriate experience or skill-level groups, such as first-enlistment (1-48 months TAFMS) and 5- and 7-skill-level groups, should be considered for inclusion in the STS. Likewise, tasks with less than 20 percent performing in all of these groups should be considered for deletion from the STS.

STS paragraphs containing performance information were reviewed. A substantial portion of the STS was found to be unsupported by occupational survey data. The number of STS line items that did not meet the minimum 20 percent performing criterion were too numerous to discuss in detail. These unsupported paragraphs and subparagraphs cut across the entire STS. However, a few selected samples are presented in Table 15 to display the scope of the problem. For a complete listing of unsupported STS items, see Appendix B. Training personnel and subject-matter experts should review these particular areas to determine if inclusion of these areas in future revisions to the STS is warranted.

Tasks not matched to any element of the STS are listed at the end of the STS computer listing. These were reviewed to determine if there were any tasks concentrated around any particular functions or jobs. There were 825

TABLE 14

## TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

| TASKS  | TASK<br>DIFF* | PERCENT MEMBERS PERFORMING |                  |                  | TNG<br>EMPH** |
|--|---------------|----------------------------|------------------|------------------|---------------|
|  |               | 1-48<br>TAFMS<br>(N=502)   | 55250<br>(N=776) | 55270<br>(N=401) |               |
| U840 MANIPULATE SAFE COMBINATIONS  | 8.04          | 3                          | 5                | 4                | 1.68          |
| U844 MODIFY VAULT DOOR LOCKING BOLTS   | 7.95          | 2                          | 4                | 3                | 1.06          |
| U841 MANUFACTURE LOCKING DEVICE PARTS  | 7.93          | 46                         | 6                | 4                | 1.65          |
| U818 DRILL OPEN MALFUNCTIONING SAFE-LOCK MECHANISMS                                    | 7.83          | 8                          | 9                | 8                | 2.09          |
| U832 INTERPRET SAFE OR SAFE-LOCK SCHEMATICS  | 7.79          | 2                          | 5                | 4                | 1.66          |
| U848 PICK LOCKS  | 7.77          | 9                          | 11               | 8                | 2.48          |
| U814 DESIGN MASTER KEY SYSTEMS   | 7.73          | 7                          | 10               | 7                | 2.28          |
| U849 REALIGN OR REPLACE SAFE DIAL ASSEMBLIES   | 7.72          | 4                          | 6                | 4                | 1.72          |
| V866 CONSTRUCT HEAVY TIMBER BRIDGES  | 7.41          | 1                          | 1                | 1                | .38           |
| U830 INSTALL OR REPLACE SAFE LOCKS   | 7.28          | 7                          | 8                | 7                | 2.12          |
| U816 DETERMINE SECURITY LEVELS OF VAULTS   | 7.26          | 4                          | 5                | 4                | .83           |
| U817 DRILL OPEN HIGH-SECURITY PADLOCKS   | 7.25          | 5                          | 6                | 6                | 1.78          |
| U833 ISOLATE MALFUNCTIONS IN MECHANICAL PORTIONS OF<br>CIPHER LOCKS                    | 7.21          | 6                          | 10               | 7                | 2.40          |
| Y978 INSTALL AIRCRAFT MOBILE ARRESTING SYSTEMS (MASS),<br>OTHER THAN IN MOBILE SYSTEMS | 7.16          | 2                          | 3                | 3                | .72           |
| Y977 INSTALL AIRCRAFT ARRESTING SYSTEMS  | 7.16          | 1                          | 3                | 2                | .72           |
| V888 OPERATE SAW MILLS   | 7.12          | 1                          | 1                | 1                | .31           |
| V864 CONSTRUCT BARGES  | 7.08          | 1                          | 1                | 0                | .32           |

\* Average Task Difficulty rating is 5.00, and the standard deviation is 1.00

\*\* Training Emphasis has an average of 2.89 and a standard deviation of 2.51 (High TE=5.40)

TABLE 15

EXAMPLES OF AFSC 552X0 STS ITEMS NOT SUPPORTED BY OSR DATA

| STS REFERENCE/TASKS |                                       | 3-LEVEL<br>COURSE<br>PROF CODE | TNG<br>EMPH* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---------------------|---------------------------------------|--------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|                     |                                       |                                |              | 1ST<br>ENL<br>(N=502)      | 5-SKILL<br>LEVEL<br>(N=776) | 7-SKILL<br>LEVEL<br>(N=401) |                |
| 10h                 | OPERATE TAR KETTLE                    | a                              |              |                            |                             |                             |                |
|                     | M588 Operate tar kettle               |                                | 4.29         | 11                         | 11                          | 5                           | 6.15           |
|                     | M587 Operate tar kettle pumps         |                                | 3.86         | 7                          | 6                           | 3                           | 6.14           |
| -----               |                                       |                                |              |                            |                             |                             |                |
| 11d                 | INSTALL METAL FORMS                   | a                              |              |                            |                             |                             |                |
|                     | H188 Assemble metal footing forms     |                                | 3.75         | 15                         | 16                          | 11                          | 3.25           |
| -----               |                                       |                                |              |                            |                             |                             |                |
| 12f                 | INSTALL TERMITE SHIELDS               | b                              |              |                            |                             |                             |                |
|                     | J343 Install termite shields          |                                | 4.55         | 15                         | 18                          | 10                          | 3.73           |
| -----               |                                       |                                |              |                            |                             |                             |                |
| 13g(3)              | CORNER BOARDS                         | 2b                             |              |                            |                             |                             |                |
|                     | K447 Install or replace corner boards |                                | 3.66         | 12                         | 16                          | 11                          | 4.27           |
| -----               |                                       |                                |              |                            |                             |                             |                |
| 17e(2)(a)           | SLATE                                 | -                              |              |                            |                             |                             |                |
|                     | K481 Install or replace slate roofing |                                | 1.66         | 6                          | 7                           | 4                           | 6.51           |
| -----               |                                       |                                |              |                            |                             |                             |                |
| 18b(4)              | WALL FABRIC                           | -                              |              |                            |                             |                             |                |
|                     | L544 Install or replace wallpaper     | 2.69                           | 15           | 19                         | 9                           | 6.26                        |                |

\* Training Emphasis has an average of 2.89 and a standard deviation of 2.51 (High TE = 5.40)

\*\* Average Task Difficulty is 5.00, and the standard deviation is 1.00

tasks not referenced to the STS. Two hundred and eighty-seven unreferenced tasks are managerial or supervisory in nature and are normally not matched to an STS. Examples of technical tasks performed by 20 percent or more respondents of the STS target groups, but which are not referenced to any STS element, are displayed in Table 16. Training personnel and subject-matter experts should review these and other unreferenced tasks to determine if inclusion in the STS is needed.

## PLAN OF INSTRUCTION

Based on assistance from technical school subject-matter experts in matching job inventory tasks to POI J3ABR55230-000 dated 15 March 1990, occupational survey data were matched to related training objectives. A similar method to that of the STS analysis was employed to review the POIs. The specific data examined included percent members performing data for first-enlistment (1-48 months TAFMS) personnel, training emphasis (TE), and task difficulty (TD) ratings. ATI ratings for each task were also used.

POI blocks, units of instruction, and criterion objectives were compared against the standard set forth in Attachment 1, APCR 52-22, dated 17 February 1989 (30 percent or more of the criterion first-enlistment group performing tasks trained, along with sufficiently high TE and TD ratings on those tasks). Per this guidance, tasks trained in the course which do not meet these criteria should be considered for elimination from the formal course if not justified on some other acceptable basis.

Review of the tasks matched to the POI reveals that only a limited number of POI units of instruction or criterion objectives are supported by OSR data for matched tasks. Of the 181 POI objectives that were matched with the survey data, 109 were not supported, in that they did not have 30 percent of 1-48 months TAFMS personnel indicating performing the matched tasks. This equates to 166 out of 397 total course hours. Examples of these objectives, along with performance data, are listed in Table 17.

Many technical tasks performed by over 30 percent of first-enlistment personnel were not matched to the POI. Examples of these tasks with survey data are listed in Table 18. In addition to many members performing these functions, several of these tasks are rated high in terms of TE and TD.

Based on these examples, it is evident that a substantial part of the formal course is not supported by the various OSR data elements which reflect responses from personnel working in the career ladder. Training personnel, career ladder managers, and subject-matter experts should perform an in-depth review of the entire course to determine which, if any, of the units of instruction can be justified for retention. Where retention cannot be supported by OSR data, alternative justification rationale for retention should be documented for future reference.

TABLE 16

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT  
OR MORE 552X0 GROUP MEMBERS AND NOT REFERENCED TO THE STS

| TASKS | PERCENT MEMBERS PERFORMING |                           |                           |  | TNG<br>EMPH* | TASK<br>DIFF** |
|-------|----------------------------|---------------------------|---------------------------|--|--------------|----------------|
|       | 1ST<br>ENL<br>(N=502)      | DAFSC<br>55250<br>(N=776) | DAFSC<br>55270<br>(N=401) |  |              |                |
| K452  | 75                         | 73                        | 40                        |  | 5.85         | 3.65           |
| Y1052 | 73                         | 77                        | 67                        |  | 5.08         | 4.53           |
| K451  | 70                         | 69                        | 37                        |  | 5.62         | 4.05           |
| K450  | 65                         | 61                        | 32                        |  | 5.18         | 4.08           |
| Y960  |                            |                           |                           |  |              |                |
|       |                            |                           |                           |  |              |                |
| J304  | 59                         | 71                        | 69                        |  | 4.46         | 4.30           |
| Y991  | 54                         | 57                        | 35                        |  | 5.91         | 3.83           |
|       |                            |                           |                           |  |              |                |
| K490  | 53                         | 62                        | 60                        |  | 4.75         | 3.36           |
| Y990  | 51                         | 60                        | 27                        |  | 5.14         | 3.78           |
| J358  | 50                         | 64                        | 58                        |  | 5.34         | 4.29           |
| J303  | 47                         | 51                        | 32                        |  | 5.95         | 5.49           |
| I274  | 41                         | 40                        | 23                        |  | 5.82         | 4.20           |
| J297  | 38                         | 38                        | 19                        |  | 3.00         | 2.59           |
|       | 34                         | 41                        | 24                        |  | 4.91         | 4.11           |

\* Training Emphasis has an average of 2.89 and a standard deviation of 2.51 (High TE=5.40)

\*\* Average Task Difficulty rating is 5.00, and the standard deviation is 1.00

TABLE 17

EXAMPLES OF TASKS REFERENCED TO POI WITH LESS THAN  
30 PERCENT MEMBERS PERFORMING

| TASKS   | TE*          | ATI    | 1ST<br>JOB | 1ST<br>ENL | TASK<br>DIFF** |
|---|--------------|--------|------------|------------|----------------|
| I 6a. SKETCH A WORKING DRAWING FOR A HANDTOOL PROJECT. THE SKETCH MUST SPECIFY SIZE, SHAPE, AND MATERIAL NEEDED TO CONSTRUCT THE PROJECT.<br>G186 Sketch working drawings   | 4.98         | 2      | 13         | 20         | 4.89           |
| III 2c. WITHOUT REFERENCE, IDENTIFY THE PROCEDURES USED TO INSTALL TERMITE SHIELDS WITH AT LEAST 80 PERCENT ACCURACY.<br>J343 Install termite shields   | 4.55         | 2      | 11         | 15         | 3.73           |
| VI 1e. WITHOUT REFERENCE, IDENTIFY FACTS PERTAINING TO THE INSTALLATION OF METAL FORMS.<br>H188 Assemble metal footing forms  | 3.75         | 2      | 15         | 15         | 3.25           |
| VII 2b. GIVEN TOOLS, MATERIALS, AND WORKING AS A MEMBER OF A TEAM, LAYOUT A DRY COURSE FOR CONCRETE BLOCK/STRUCTURAL TILE. THE COMPLETED PROJECT MUST SHOW LAYOUT LINES AND MORTAR JOINT THICKNESS.<br>P669 Chase bonds<br>P711 Strike lines for laying block, brick, or structural tiles | 4.37<br>4.88 | 2<br>2 | 15<br>21   | 14<br>21   | 4.89<br>4.37   |
| VIII 3f. GIVEN TOOLS, MATERIALS, AND WORKING AS A MEMBER OF A TEAM, CLEAN GROUT FROM MOSAIC TILES. ALL EXCESSIVE GROUT MUST BE REMOVED, THE TILES MUST BE CLEAN AND FREE OF FILM.<br>Q718 Clean tile surfaces, other than for mortar stains   | 3.72         | 2      | 11         | 14         | 4.01           |

\* Training Emphasis has an average of 2.89 and a standard deviation of 2.51 (High TE=5.40)

\*\* Average Task Difficulty rating is 5.00, and the standard deviation is 1.00

TABLE 18

EXAMPLES OF TASKS NOT REFERENCED TO POI WITH GREATER THAN  
30 PERCENT MEMBERS PERFORMING

| TASKS   | TE*  | ATI | 1ST<br>JOB | 1ST<br>ENL | TASK<br>DIFF** |
|---|------|-----|------------|------------|----------------|
| Y951 ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS   | 4.88 | 17  | 59         | 63         | 5.02           |
| Y963 ERECT HARBACK TENTS  | 5.37 | 17  | 43         | 51         | 5.80           |
| J304 ERECT INTERIOR PARTITIONS  | 5.91 | 16  | 45         | 54         | 3.83           |
| K450 INSTALL OR REPLACE DOOR CLOSER COMPONENTS  | 5.18 | 16  | 60         | 65         | 4.08           |
| K451 INSTALL OR REPLACE DOOR CLOSERS  | 5.62 | 16  | 64         | 70         | 4.05           |
| K452 INSTALL OR REPLACE DOOR HINGES   | 5.85 | 16  | 72         | 75         | 3.65           |
| K490 INSTALL OR REPLACE THRESHOLDS  | 5.14 | 16  | 41         | 51         | 3.78           |
| S789 REMOVE OR REPLACE PARTS ON HANDTOOLS   | 4.94 | 16  | 51         | 54         | 3.24           |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING  | 4.46 | 16  | 55         | 59         | 4.30           |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION   | 5.43 | 16  | 78         | 78         | 4.37           |
| Y990 MAINTAIN M-17 GAS MASKS  | 5.34 | 16  | 45         | 50         | 4.29           |
| Y991 MAINTAIN PERSONAL DOCUMENTATION, SUCH AS SHOT RECORDS, DOG TAGS,<br>OR MILITARY IDENTIFICATION (ID) TAGS | 4.75 | 16  | 48         | 53         | 3.36           |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES   | 5.08 | 16  | 73         | 73         | 4.53           |
| J293 CONSTRUCT HARBACK TENT FRAMES  | 5.34 | 15  | 40         | 49         | 5.65           |
| J358 LAY OUT DOOR OR WINDOW OPENINGS  | 5.95 | 15  | 44         | 47         | 5.49           |
| K423 APPLY WALL TEXTURES  | 3.02 | 15  | 25         | 30         | 5.04           |
| U809 ADJUST PANIC HARDWARE  | 5.66 | 15  | 36         | 47         | 5.30           |
| Y1035 PRACTICE FIRST-AID LIFESAVING TECHNIQUES  | 5.31 | 15  | 27         | 36         | 5.23           |
| H212 REMOVE WOODEN OR METAL FORMS   | 3.95 | 14  | 46         | 47         | 2.58           |

\* Training Emphasis has an average of 2.89 and a standard deviation of 2.51 (High TE=5.40)

\*\* Average Task Difficulty rating is 5.00, and the standard deviation is 1.00

## JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Attitude questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction. The responses of the current survey sample were then analyzed by making several comparisons: (1) among TAFMS groups of the 552X0 career ladder and a comparative sample of personnel from other Direct Support specialists surveyed in 1989 (AFSCs 231X3 and 632X0); (2) between current and previous survey TAFMS groups; and (3) across specialty groups identified in the SPECIALTY JOBS section of the report.

First-enlistment (1-48 months TAFMS), second-enlistment (49-96 months TAFMS), and career (97+ months TAFMS) group data are listed in Table 19 and are compared to corresponding enlistment groups from other Direct Support AFSCs surveyed during the previous calendar year. These data give a relative measure of how the job satisfaction of AFSC 552X0 personnel compares with that of other similar Air Force specialties. Generally, first- and second-enlistment groups of the DAFSC 552X0 sample indicate higher levels of job satisfaction than do those of the comparative sample in all areas but utilization of training. However, the career 552X0 group was lower in all areas except sense of accomplishment from work. Overall, satisfaction for all three groups is still quite high. The high percentages of positive responses in these comparisons reflect a career ladder where personnel appear to be well satisfied with their jobs.

An indication of changes in job satisfaction perceptions within the career ladder is provided in Table 20 where TAFMS group data for 1990 survey respondents are presented, along with data from respondents to the last occupational survey report of the career ladder in 1985. Generally, perceptions associated with job interest have improved for all three groups since the 1985 OSR.

Table 21 presents job satisfaction data for the major jobs (clusters and independent job types) identified in the career ladder structure for AFSC 552X0. An examination of this data can reveal the influences performing certain jobs may have on overall job satisfaction. Job satisfaction indicators for the specialty job groups suggest most members across the career ladder are generally content. However, 42 percent of the Supply personnel described their jobs as "so-so" or "dull," and 50 percent of the Prime BEEF personnel described their jobs as "so-so" or "dull." Both the Supply and the Prime BEEF personnel perceived little utilization of training. Finally, 4 of the 10 jobs had low reenlistment intentions.

TABLE 19

COMPARISON OF TAFMS GROUP JOB SATISFACTION INDICATORS  
(PERCENT MEMBERS PERFORMING)

|   | 1-48 MOS TAFMS   |                                  | 49-96 MOS TAFMS  |                                  | 97+ MOS TAFMS    |                                |
|---|------------------|----------------------------------|------------------|----------------------------------|------------------|--------------------------------|
|   | 552X0<br>(N=502) | 1989<br>COMP SAMPLE<br>(N=1,142) | 552X0<br>(N=370) | 1989<br>COMP SAMPLE<br>(N=2,934) | 552X0<br>(N=630) | 1989<br>COMP SAMPLE<br>(N=954) |
| <u>EXPRESSED JOB INTEREST:</u>            |                  |                                  |                  |                                  |                  |                                |
| Interesting                               | 75               | 58                               | 78               | 57                               | 67               | 72                             |
| So-So                                     | 14               | 24                               | 17               | 22                               | 15               | 17                             |
| Dull                                      | 11               | 18                               | 6                | 20                               | 8                | 10                             |
| <u>PERCEIVED UTILIZATION OF TALENTS:</u>  |                  |                                  |                  |                                  |                  |                                |
| Fairly Well To Perfectly                  | 83               | 51                               | 85               | 67                               | 80               | 83                             |
| Little Or Not At All                      | 17               | 41                               | 15               | 34                               | 20               | 16                             |
| <u>PERCEIVED UTILIZATION OF TRAINING:</u> |                  |                                  |                  |                                  |                  |                                |
| Fairly Well To Perfectly                  | 82               | 91                               | 80               | 86                               | 83               | 86                             |
| Little Or Not At All                      | 18               | 9                                | 20               | 13                               | 22               | 13                             |
| <u>SENSE OF ACCOMPLISHMENT FROM WORK:</u> |                  |                                  |                  |                                  |                  |                                |
| Satisfied                                 | 78               | 61                               | 81               | 58                               | 76               | 58                             |
| Neutral                                   | 8                | 18                               | 8                | 17                               | 8                | 17                             |
| Dissatisfied                              | 14               | 20                               | 11               | 24                               | 16               | 24                             |
| <u>REENLISTMENT INTENTIONS:</u>           |                  |                                  |                  |                                  |                  |                                |
| Will/Probably Will Reenlist               | 54               | 61                               | 79               | 75                               | 77               | 75                             |
| Will Not/Probably Will Not                |                  |                                  |                  |                                  |                  |                                |
| Reenlist                                  | 45               | 38                               | 20               | 24                               | 7                | 9                              |
| Will Retire                               | N/A              | N/A                              | N/A              | N/A                              | 15               | 16                             |

NOTE: Columns may not add to 100 percent due to nonresponse and rounding  
Comparative sample is composed of all Direct Support career ladders surveyed in 1989  
(includes AFSCs 231X3, 631X0)

N/A=Not Applicable

TABLE 20

COMPARISON OF JOB SATISFACTION DATA  
(PERCENT MEMBERS PERFORMING)

|   | 1-48 MOS TAFMS |       |       | 49-96 MOS TAFMS |       |       | 97+ MOS TAFMS |       |       |
|---|----------------|-------|-------|-----------------|-------|-------|---------------|-------|-------|
|   | 1991           | 1985  | 1985  | 1991            | 1985  | 1985  | 1991          | 1985  | 1985  |
|   | 552X0          | 552X0 | 552X1 | 552X0           | 552X0 | 552X1 | 552X0         | 552X0 | 552X1 |
|   | (N=502)        | (N=)  | (N=)  | (N=370)         | (N=)  | (N=)  | (N=630)       | (N=)  | (N=)  |
| <u>EXPRESSED JOB INTEREST:</u>            |                |       |       |                 |       |       |               |       |       |
| Interesting                               | 75             | 70    | 66    | 78              | 77    | 64    | 67            | 76    | 78    |
| So-So                                     | 14             | *     | *     | 17              | *     | *     | 15            | *     | *     |
| Dull                                      | 11             | *     | *     | 6               | *     | *     | 8             | *     | *     |
| <u>PERCEIVED UTILIZATION OF TALENTS:</u>  |                |       |       |                 |       |       |               |       |       |
| Fairly Well To Perfectly                  | 83             | 77    | 77    | 85              | 79    | 78    | 80            | 85    | 80    |
| Little Or Not At All                      | 17             | *     | *     | 15              | *     | *     | 20            | *     | *     |
| <u>PERCEIVED UTILIZATION OF TRAINING:</u> |                |       |       |                 |       |       |               |       |       |
| Fairly Well To Perfectly                  | 82             | 75    | 82    | 80              | 74    | 78    | 83            | 85    | 77    |
| Little Or Not At All                      | 18             | *     | *     | 20              | *     | *     | 22            | *     | *     |
| <u>SENSE OF ACCOMPLISHMENT FROM WORK:</u> |                |       |       |                 |       |       |               |       |       |
| Satisfied                                 | 78             | 72    | 74    | 81              | 73    | 67    | 76            | 76    | 80    |
| Neutral                                   | 8              | *     | *     | 8               | *     | *     | 8             | *     | *     |
| Dissatisfied                              | 14             | *     | *     | 11              | *     | *     | 16            | *     | *     |
| <u>REENLISTMENT INTENTIONS:</u>           |                |       |       |                 |       |       |               |       |       |
| Will/Probably Will Reenlist               | 54             | 59    | 69    | 79              | 82    | 80    | 15            | 80    | 72    |
| Will Not/Probably Will Not                | 45             | *     | *     | 20              | *     | *     | 7             | *     | *     |
| Reenlist                                  | 1              | 1     | 1     | 0               | **    | 0     | 77            | 2     | 19    |
| Will Retire                               |                |       |       |                 |       |       |               |       |       |

\* Information not available

\*\* Less than 1 percent

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 21

JOB SATISFACTION DATA FOR CLUSTERS AND INDEPENDENT JOB TYPES  
(PERCENT MEMBERS PERFORMING)

|   | INTERIOR<br>FINISHERS<br>IJT | FRAMERS<br>CLUSTER | INTERIOR<br>CARPENTRY<br>CLUSTER | FRAMING &<br>INTERIOR<br>CARPENTRY<br>CLUSTER | LOCKSMITHS<br>CLUSTER |
|---|------------------------------|--------------------|----------------------------------|---|-----------------------|
| <u>EXPRESSED JOB INTEREST:</u>            |                              |                    |                                  |   |                       |
| Interesting                               | 99                           | 78                 | 69                               | 83  | 84                    |
| So-So                                     | 0                            | 12                 | 18                               | 12  | 10                    |
| Dull                                      | 0                            | 10                 | 13                               | 4   | 6                     |
| <u>PERCEIVED UTILIZATION OF TALENTS:</u>  |                              |                    |                                  |   |                       |
| Fairly Well To Perfectly                  | 100                          | 87                 | 74                               | 90  | 88                    |
| Little Or Not At All                      | 0                            | 13                 | 26                               | 10  | 12                    |
| <u>PERCEIVED UTILIZATION OF TRAINING:</u> |                              |                    |                                  |   |                       |
| Fairly Well To Perfectly                  | 82                           | 78                 | 74                               | 89  | 68                    |
| Little Or Not At All                      | 18                           | 22                 | 26                               | 11  | 31                    |
| <u>SENSE OF ACCOMPLISHMENT:</u>           |                              |                    |                                  |   |                       |
| Satisfied                                 | 91                           | 84                 | 74                               | 86  | 79                    |
| Neutral                                   | 0                            | 8                  | 8                                | 7   | 6                     |
| Dissatisfied                              | 9                            | 8                  | 18                               | 7   | 15                    |
| <u>REENLISTMENT INTENTIONS:</u>           |                              |                    |                                  |   |                       |
| Will/Probably Will Reenlist               | 91                           | 65                 | 67                               | 74  | 67                    |
| Will Not/Probably Will Not Reenlist       | 9                            | 31                 | 29                               | 6   | 27                    |
| Will Retire                               | 0                            | 2                  | 4                                | 6   | 0                     |

NOTE: Columns may not add to 100 percent due to rounding or lack of response

TABLE 21 (CONTINUED)

JOB SATISFACTION DATA FOR CLUSTERS AND INDEPENDENT JOB TYPES  
(PERCENT MEMBERS PERFORMING)

|   | CONCRETE &<br>MASONRY<br>CONSTRUCTION<br>CLUSTER | SUPPLY<br>CLUSTER | PLANNERS<br>CLUSTER | SUPERVISORS<br>CLUSTER | PRIME BEEF<br>IJT |
|---|--|-------------------|---------------------|------------------------|-------------------|
| <u>EXPRESSED JOB INTEREST:</u>            |  |                   |                     |                        |                   |
| Interesting                               | 81   | 58                | 83                  | 84                     | 50                |
| So-So                                     | 11   | 24                | 11                  | 9                      | 33                |
| Dull                                      | 7  | 18                | 6                   | 7                      | 17                |
| <u>PERCEIVED UTILIZATION OF TALENTS:</u>  |  |                   |                     |                        |                   |
| Fairly Well To Perfectly                  | 78   | 65                | 85                  | 83                     | 67                |
| Little Or Not At All                      | 12   | 35                | 15                  | 16                     | 33                |
| <u>PERCEIVED UTILIZATION OF TRAINING:</u> |  |                   |                     |                        |                   |
| Fairly Well To Perfectly                  | 89   | 59                | 81                  | 83                     | 33                |
| Little Or Not At All                      | 10   | 41                | 18                  | 17                     | 67                |
| <u>SENSE OF ACCOMPLISHMENT FROM WORK:</u> |  |                   |                     |                        |                   |
| Satisfied                                 | 82   | 59                | 78                  | 80                     | 50                |
| Neutral                                   | 7  | 6                 | 7                   | 6                      | 33                |
| Dissatisfied                              | 10   | 35                | 15                  | 14                     | 17                |
| <u>REENLISTMENT INTENTIONS:</u>           |  |                   |                     |                        |                   |
| Will/Probably Will Reenlist               | 70   | 88                | 76                  | 79                     | 83                |
| Will Not/Probably Will Not Reenlist       | 20   | 0                 | 11                  | 9                      | 17                |
| Will Retire                               | 5  | 23                | 12                  | 13                     | 0                 |

NOTE: Columns may not add to 100 percent due to rounding or lack of response

## IMPLICATIONS

As explained in the INTRODUCTION, this survey was conducted primarily to provide training personnel with current information on the Structural specialty for use in reviewing current training programs and training documents.

The findings of this survey suggest that data support the current structure of the 552X0 career ladder. The present classification structure, as described by the AFR 39-1 Specialty Descriptions, accurately portrays the jobs in this study.

Analysis of career ladder documents indicates both the STS and POI require review. Training personnel and subject-matter experts should review these documents to determine if continued inclusion of many areas is warranted. Tasks not referenced to the STS and POI should also be reviewed by training personnel and subject-matter experts to determine if new areas should be added to this document.

No serious job satisfaction problems appear to exist within this specialty. Overall, job satisfaction responses were almost all higher than that of a comparative sample of similar Air Force personnel surveyed in 1989.

The findings of this OSR come directly from the survey data collected from Structural personnel worldwide. These data are readily available to training and utilization personnel, functional managers, and any other interested parties having a need for such information. Much of the data are compiled into extracts which are excellent tools in the decision-making process. These data extracts should be used when training or utilization decisions are made.

APPENDIX A  
SELECTED REPRESENTATIVE TASKS PERFORMED BY  
CAREER LADDER SPECIALTY JOB GROUPS

TABLE I  
INTERIOR FINISHERS IJT  
STG497

GROUP SIZE: 11  
PERCENT OF SAMPLE: 1%  
AVERAGE PAYGRADE: E-4

AVERAGE TAFMS: 76 MONTHS  
AVERAGE TICF: 68 MONTHS  
PERCENT IN 1ST ENL: 45%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| L529 CONSTRUCT DESK OR WALL PLAQUES   | 100                              |
| L527 CONSTRUCT CABINETS   | 100                              |
| S783 INSPECT HANDTOOLS  | 100                              |
| S780 CLEAN HANDTOOLS  | 100                              |
| L530 CONSTRUCT PICTURE FRAMES   | 91                               |
| L524 APPLY FINISH OR PROTECTIVE COATINGS, SUCH AS VARNISHES,<br>PAINTS, OR STAINS TO WOOD FURNISHINGS | 91                               |
| L536 INSTALL OR REPLACE CABINET DOORS   | 91                               |
| L632 CONSTRUCT TABLES   | 91                               |
| S782 CLEAN SHOP-INSTALLED POWER EQUIPMENT   | 91                               |
| S784 INSPECT PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS   | 91                               |
| S789 REMOVE OR REPLACE PARTS ON HANDTOOLS   | 91                               |
| S779 ADJUST SHOP-INSTALLED POWER EQUIPMENT  | 91                               |
| S791 REMOVE OR REPLACE PARTS ON SHOP-INSTALLED POWER EQUIPMENT  | 91                               |
| L537 INSTALL OR REPLACE CABINETS  | 82                               |
| L553 REPAIR DAMAGED CABINETS  | 82                               |
| L533 CONSTRUCT WALL OR CORNER SHELVES   | 82                               |
| L549 REMOVE OR REPLACE CABINET DRAWERS, HINGES, OR KNOBS  | 82                               |
| S786 LUBRICATE HANDTOOLS  | 73                               |
| L535 INSTALL BOOKCASES  | 73                               |
| L525 CONSTRUCT AIRCRAFT WOOD FURNISHINGS  | 73                               |
| S778 ADJUST PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS  | 73                               |
| L534 CONSTRUCT WOODEN LOCKERS   | 64                               |
| L542 INSTALL OR REPLACE LAMINATED PLASTICS ON FURNISHINGS,<br>SUCH AS COUNTER TOPS OR SPLASH BOARDS   | 55                               |
| G186 SKETCH WORKING DRAWINGS  | 55                               |

TABLE II  
FRAMERS CLUSTER  
STG070

GROUP SIZE: 51  
PERCENT OF SAMPLE: 3%  
AVERAGE PAYGRADE: E-3

AVERAGE TAFMS: 48 MONTHS  
AVERAGE TICF: 32 MONTHS  
PERCENT IN 1ST ENL: 75%

| TASKS  | PERCENT<br>MEMBERS<br>PERFORMING |
|--|----------------------------------|
| J341 INSTALL STUDS                                 | 99                               |
| J302 CUT STUDS                                     | 84                               |
| J311 INSTALL CRIPPLES                              | 80                               |
| J295 CONSTRUCT INTERIOR PARTITIONS                 | 76                               |
| J294 CONSTRUCT HEADERS AND CRIPPLES                | 76                               |
| J382 LAY OUT STUDS                                 | 75                               |
| J292 CONSTRUCT DOOR OR WINDOW OPENINGS             | 75                               |
| J344 INSTALL TOP PLATES                            | 75                               |
| J304 ERECT INTERIOR PARTITIONS                     | 73                               |
| J296 CONSTRUCT PARTITION STUDS                     | 71                               |
| J315 INSTALL HEADERS                               | 71                               |
| J312 INSTALL DOUBLE-TOP PLATES                     | 71                               |
| K462 INSTALL OR REPLACE GYPSUM BOARDS              | 65                               |
| K486 INSTALL OR REPLACE SUSPENDED CEILINGS         | 63                               |
| J358 LAY OUT DOOR OR WINDOW OPENINGS               | 61                               |
| J310 INSTALL CORNER POSTS                          | 61                               |
| K451 INSTALL OR REPLACE DOOR CLOSERS               | 61                               |
| J288 CONSTRUCT BUILT-UP CORNER POSTS               | 61                               |
| K419 ADJUST DOOR CLOSER COMPONENTS                 | 59                               |
| J313 INSTALL FIRE BLOCKINGS                        | 59                               |
| J324 INSTALL OR REPLACE DOOR OR WINDOW UNITS       | 57                               |
| J385 LAY OUT TOP PLATES                            | 57                               |
| K452 INSTALL OR REPLACE DOOR HINGES                | 57                               |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION            | 57                               |
| K464 INSTALL OR REPLACE HOLLOW OR SOLID-CORE DOORS | 55                               |
| K450 INSTALL OR REPLACE DOOR CLOSER COMPONENTS     | 53                               |
| S777 ADJUST HANDTOOLS                              | 53                               |
| S780 CLEAN HANDTOOLS                               | 51                               |
| J297 CONSTRUCT ROUGH SILLS                         | 51                               |

TABLE III  
INTERIOR CARPENTRY CLUSTER  
STG125

GROUP SIZE: 262  
PERCENT OF SAMPLE: 17%  
AVERAGE PAYGRADE: E-4

AVERAGE TAFMS: 70 MONTHS  
AVERAGE TICF: 54 MONTHS  
PERCENT IN 1ST ENL: 47%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| K452 INSTALL OR RELACE DOOR HINGES  | 92                               |
| S780 CLEAN HANDTOOLS  | 91                               |
| K451 INSTALL OR REPLACE DOOR CLOSERS  | 89                               |
| K419 ADJUST DOOR CLOSER COMPONENTS  | 89                               |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION   | 88                               |
| K433 CUT PLEXIGLASS TO SPECIFIC DIMENSIONS  | 83                               |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES   | 82                               |
| K450 INSTALL OR REPLACE DOOR CLOSER COMPONENTS  | 81                               |
| K453 INSTALL OR REPLACED DOOR JAMBS OR STOPS  | 81                               |
| S777 ADJUST HANDTOOLS   | 81                               |
| K486 INSTALL OR REPLACE SUSPENDED CEILINGS  | 81                               |
| K462 INSTALL OR REPLACE GYPSUM BOARDS   | 81                               |
| K424 CAULK WINDOWS, SINKS, OR BATHTUBS  | 79                               |
| K438 INSTALL ASPHALT OR VINYL FLOOR TILES   | 79                               |
| S783 INSPECT HANDTOOLS  | 77                               |
| U808 ADJUST DOOR LOCKS  | 74                               |
| K518 REPAIR HOLES IN GYPSUM BOARD   | 73                               |
| K464 INSTALL OR REPLACE HOLLOW OR SOLID-CORE DOORS  | 72                               |
| K491 INSTALL OR REPLACE TRIM MOLDING, SUCH AS BASEBOARDS,<br>WAINSCOTING, OR DOOR OR WINDOW CASINGS           | 71                               |
| Y951 ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS   | 71                               |
| S792 SHAPE AND SHARPEN HANDTOOLS  | 70                               |
| U809 ADJUST PANIC HARDWARE  | 67                               |
| U827 INSTALL OR REPLACE DOOR LOCKS  | 67                               |
| S782 CLEAN SHOP-INSTALLED POWER EQUIPMENT   | 66                               |
| I248 DRILL HOLES IN CONCRETE WITH ELECTRIC DRILLS   | 66                               |
| S778 ADJUST PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS  | 66                               |
| Y991 MAINTAIN PERSONAL DOCUMENTATION, SUCH AS SHOT RECORDS, DOG<br>TAGS, OR MILITARY IDENTIFICATION (ID) TAGS | 64                               |

TABLE IV  
FRAMING AND INTERIOR CARPENTRY CLUSTER  
STG180

GROUP SIZE: 451  
PERCENT OF SAMPLE: 30%  
AVERAGE PAYGRADE: E4

AVERAGE TAFMS: 86 MONTHS  
AVERAGE TICF: 73 MONTHS  
PERCENT IN 1ST ENL: 32%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| K452 INSTALL OR REPLACE DOOR HINGES                         | 96                               |
| J302 CUT STUDS  | 95                               |
| K486 INSTALL OR REPLACE SUSPENDED CEILINGS                  | 94                               |
| K453 INSTALL OR REPLACE DOOR JAMBS OR STOPS                 | 93                               |
| S780 CLEAN HANDTOOLS  | 93                               |
| J341 INSTALL STUDS  | 92                               |
| J292 CONSTRUCT DOOR OR WINDOW OPENINGS                      | 91                               |
| K419 ADJUST DOOR CLOSER COMPONENTS                          | 90                               |
| K451 INSTALL OR REPLACE DOOR CLOSERS                        | 90                               |
| K462 INSTALL OR REPLACE GYPSUM BOARDS                       | 90                               |
| J382 LAY OUT STUDS  | 90                               |
| J304 ERECT INTERIOR PARTITIONS                              | 90                               |
| K433 CUT PLEXIGLASS TO SPECIFIC DIMENSION                   | 89                               |
| S777 ADJUST HANDTOOLS                                       | 89                               |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION                     | 89                               |
| K464 INSTALL OR REPLACE HOLLOW OR SOLID-CORE DOORS          | 88                               |
| J294 CONSTRUCT HEADERS AND CRIPPLES                         | 88                               |
| J324 INSTALL OR REPLACE DOOR OR WINDOW UNITS                | 87                               |
| J295 CONSTRUCT INTERIOR PARTITIONS                          | 87                               |
| J315 INSTALL HEADERS  | 87                               |
| K438 INSTALL ASPHALT OR VINYL FLOOR TILES                   | 87                               |
| J324 INSTALL OR REPLACE DOOR OR WINDOW UNITS                | 87                               |
| J296 CONSTRUCT PARTITION STUDS                              | 86                               |
| K450 INSTALL OR REPLACE DOOR CLOSER COMPONENTS              | 85                               |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES | 85                               |
| K431 CUT GLASS TO SPECIFIC DIMENSIONS                       | 84                               |
| S786 LUBRICATE HANDTOOLS                                    | 84                               |
| J344 INSTALL TOP PLATES                                     | 84                               |
| S782 CLEAN SHOP-INSTALLED POWER EQUIPMENT                   | 84                               |

TABLE V  
CONCRETE AND MASONRY CONSTRUCTION CLUSTER  
STG195

GROUP SIZE: 148  
PERCENT OF SAMPLE: 10%  
AVERAGE PAYGRADE: E-4

AVERAGE TAFMS: 80 MONTHS  
AVERAGE TICF: 68 MONTHS  
PERCENT IN 1ST ENL: 35%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| P676 CUT BLOCK OR BRICK WITH HANDTOOLS  | 80                               |
| I256 INSPECT CONCRETE FOR DEFECTS, SUCH AS CRACKS, SCALING,<br>SPALLS, POPOUTS, HONEYCOMBS, OR SETTLEMENT | 80                               |
| Y1052 TEAR DOWN, INSPE. CLEAN, AND REASSEMBLE M-16 RIFLES<br>CONSTRUCTION WITH STRAIGHT EDGES             | 77                               |
| P698 PERFORM ALIGNMENT CHECKS OF BLOCK, BRICK, OR STRUCTURAL TILE   | 77                               |
| I274 REMOVE BROKEN CONCRETE   | 76                               |
| P703 PLUMB BLOCK, BRICK, OR STRUCTURAL TILE WALLS   | 76                               |
| N596 CALCULATE RATIO MIXTURES FOR CONCRETE  | 76                               |
| P700 PERFORM LEVEL CHECKS OF BLOCK, BRICK, OR STRUCTURAL TILE<br>CONSTRUCTION WITH STRINGS                | 76                               |
| P709 SHAPE MORTAR JOINTS BETWEEN BLOCK, BRICK, OR STRUCTURAL<br>TILES                                     | 76                               |
| I218 BEND REINFORCING STEEL   | 76                               |
| I258 INSTALL ANCHOR BOLTS OR FASTENING DEVICES  | 76                               |
| H214 SAW CONCRETE, MASONRY, PLASTER, OR TILE WITH WET SAWS  | 75                               |
| I260 INSTALL EXPANSION OR CONTRACTION JOINTS  | 75                               |
| Y951 ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS   | 75                               |
| I221 BREAK CONCRETE WITH PNEUMATIC JACKHAMMERS OR ELECTRIC<br>HAMMERS                                     | 74                               |
| K436 ERECT METAL SCAFFOLDING  | 73                               |
| P696 MAINTAIN MORTAR CONSISTENCY  | 73                               |
| S779 ADJUST SHOP-INSTALLED POWER EQUIPMENT  | 71                               |
| K437 ERECT STEEL-SECTIONAL SCAFFOLDING  | 71                               |
| H213 SAW CONCRETE, MASONRY, PLASTER, OR TILE WITH DRY SAWS  | 71                               |
| P669 CHASE BONDS  | 71                               |
| P693 LAY BLOCK, BRICK, OR STRUCTURAL TILE WALLS WITH CORNER<br>BLOCKS AND LINES                           | 70                               |
| K424 CAULK WINDOWS, SINKS, OR BATHTUBS  | 70                               |
| Q733 PREPARE GROUT FOR CERAMIC TILES  | 70                               |
| Q719 CUT AND SHAPE CERAMIC, MOSAIC, OR QUARRY TILES WITH<br>HANDTOOLS                                     | 70                               |
| K462 INSTALL OR REPLACE GYPSUM BOARDS   | 70                               |
| K452 INSTALL OR REPLACE DOOR HINGES   | 70                               |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING  | 69                               |
| N601 MIX CONCRETE BY HAND FOR HOT WEATHER PLACEMENT   | 68                               |

TABLE VI  
LOCKSMITHS CLUSTER  
STG397

GROUP SIZE: 48  
PERCENT OF SAMPLE: 3%  
AVERAGE PAYGRADE: E-4

AVERAGE TAFMS: 94 MONTHS  
AVERAGE TICF: 77 MONTHS  
PERCENT IN 1ST ENL: 35%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| U808 ADJUST DOOR LOCKS  | 100                              |
| U809 ADJUST PANIC HARDWARE  | 100                              |
| U829 INSTALL OR REPLACE PANIC HARDWARE  | 100                              |
| U827 INSTALL OR REPLACE DOOR LOCKS  | 98                               |
| U835 MAINTAIN DOOR LOCKS  | 98                               |
| U819 DUPLICATE KEYS WITH CODE KEY MACHINES  | 96                               |
| U857 REPLACE DOOR LOCK KNOBS, CYLINDERS, OR CYLINDER HOUSINGS                           | 96                               |
| U822 EXTRACT BROKEN KEYS FROM LOCKS   | 96                               |
| U826 INSTALL OR REPLACE CIPHER LOCKS  | 94                               |
| U854 REPIN INTERCHANGEABLE CORE LOCKS   | 94                               |
| U812 CLEAN LOCKS  | 92                               |
| U842 MASTER KEY INTERCHANGEABLE CORE LOCKS  | 90                               |
| U860 REPLACE WORN OR DAMAGED PARTS IN DOOR LOCKS  | 90                               |
| U810 CHANGE CIPHER LOCK COMBINATIONS  | 90                               |
| U834 MAINTAIN CIPHER LOCKS  | 83                               |
| U833 ISOLATE MALFUNCTIONS IN MECHANICAL PORTIONS OF CIPHER LOCKS                        | 83                               |
| U824 IMPLEMENT MASTER KEY SYSTEMS   | 81                               |
| U838 MAINTAIN PADLOCKS  | 81                               |
| U837 MAINTAIN MASTER KEYING SYSTEM RECORDS  | 79                               |
| U847 PERFORM PREVENTIVE MAINTENANCE ON CODE KEY MACHINES OR KEY<br>DUPLICATING MACHINES | 79                               |
| U825 INSTALL OR REPLACE CABINET OR DESK LOCKS   | 79                               |
| U823 FILE KEYS BY HAND  | 77                               |
| U831 INSTALL OR REPLACE TUBULAR LOCKS   | 75                               |
| U836 MAINTAIN KEY REQUEST LOGS  | 75                               |
| U855 REPIN REGULAR PIN LOCKS  | 71                               |
| U843 MASTER KEY REGULAR PIN LOCKS   | 71                               |
| U848 PICK LOCKS   | 71                               |

TABLE VII

SUPPLY CLUSTER  
STG124

GROUP SIZE: 17  
 PERCENT OF SAMPLE: 1%  
 AVERAGE PAYGRADE: E-5

AVERAGE TAFMS: 167 MONTHS  
 AVERAGE TICF: 136 MONTHS  
 PERCENT IN 1ST ENL: 6%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| F140 COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)   | 100                              |
| F158 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES, OTHER THAN<br>COMPOSITE TOOL KITS (CTKs)                        | 88                               |
| F159 ISSUE NONACCOUNTABLE SUPPLIES  | 88                               |
| F143 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)   | 88                               |
| F160 LOG ISSUE OR TURN IN OF SUPPLIES OR EQUIPMENT  | 82                               |
| Y990 MAINTAIN M17 GAS MASKS   | 82                               |
| S783 INSPECT HANDTOOLS  | 82                               |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION   | 76                               |
| Y991 MAINTAIN PERSONAL DOCUMENTATION, SUCH AS SHOT RECORDS, DOG<br>TAGS, OR MILITARY IDENTIFICATION (ID) TAGS | 71                               |
| F155 EVALUATE SERVICEABILITY OF SUPPLIES OR EQUIPMENT   | 71                               |
| F149 COORDINATE PROCUREMENT OF PARTS OR MATERIALS WITH BASE<br>SUPPLY   | 71                               |
| S787 LUBRICATE PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS   | 65                               |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES   | 65                               |
| F163 MONITOR SHOP STOCK LEVELS  | 59                               |
| F153 EVALUATE EQUIPMENT STORAGE PROCEDURES  | 59                               |
| S784 INSPECT PORTABLE ELECTRIC OR PNEUMATIC POWER TOOLS   | 59                               |
| F147 COMPLETE DD FORMS 1348-6 (DOD SINGLE LINE ITEM REQUISITION<br>SYSTEM DOCUMENT)                           | 59                               |
| S789 REMOVE OR REPLACE PARTS ON HANDTOOLS   | 59                               |
| S780 CLEAN HANDTOOLS  | 59                               |
| S782 CLEAN SHOP-INSTALLED POWER EQUIPMENT   | 59                               |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING  | 59                               |
| F157 IDENTIFY SUPPLY PROBLEMS   | 59                               |
| F144 COMPLETE AF FORMS 601 (EQUIPMENT ACTION REQUEST)   | 59                               |
| S790 REMOVE OR REPLACE PARTS ON PORTABLE ELECTRIC OR PNEUMATIC<br>POWER EQUIPMENT                             | 59                               |
| F162 MAINTAIN PROPERTY CUSTODY AUTHORIZATION/CUSTODY RECEIPT<br>LISTINGS (CA/CRLs)                            | 53                               |
| S786 LUBRICATE HANDTOOLS  | 53                               |
| S786 ADJUST SHOP-INSTALLED POWER EQUIPMENT  | 53                               |
| S792 SHAPE AND SHARPEN HANDTOOLS  | 53                               |
| B25 CORRECT SAFETY HAZARDS  | 53                               |

TABLE VIII  
PLANNERS CLUSTER  
STG083

GROUP SIZE: 88  
PERCENT OF SAMPLE: 6%  
AVERAGE PAYGRADE: E-6

AVERAGE TAFMS: 158 MONTHS  
AVERAGE TICF: 130 MONTHS  
PERCENT IN 1ST ENL: 7%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| G180 ESTIMATE QUANTITIES OF MATERIALS REQUIRED FOR CARPENTRY PROJECTS                                     | 94                               |
| G178 ESTIMATE COST OF MATERIALS   | 94                               |
| G175 ESTABLISH TYPES OF MATERIALS REQUIRED FOR CARPENTRY PROJECTS   | 92                               |
| G186 SKETCH WORKING DRAWINGS  | 88                               |
| G185 ORDER MATERIALS  | 86                               |
| G181 ESTIMATE QUANTITIES OF MATERIALS REQUIRED FOR MASONRY PROJECTS                                       | 84                               |
| G183 INTERPRET CARPENTRY CONSTRUCTION DRAWINGS  | 84                               |
| G176 ESTABLISH TYPES OF MATERIALS REQUIRED FOR MASONRY PROJECTS   | 80                               |
| G173 COORDINATE SITE PLANNING WITH PROJECT REQUESTERS   | 77                               |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION   | 76                               |
| G173 COORDINATE SITE PLANNING WITH PROJECT REQUESTERS   | 73                               |
| G179 ESTIMATE MAN-HOUR REQUIREMENTS   | 72                               |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING  | 69                               |
| G182 ESTIMATE QUANTITIES OF MATERIALS REQUIRED FOR ROOFING SYSTEMS  | 68                               |
| G177 ESTABLISH TYPES OF MATERIALS REQUIRED FOR ROOFING SYSTEMS  | 68                               |
| Y991 MAINTAIN PERSONAL DOCUMENTATION SUCH AS SHOT RECORDS, DOG TAGS, OR MILITARY IDENTIFICATION (ID) TAGS | 68                               |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES   | 66                               |
| E134 REVIEW AF FORMS 332 (BCE WORK REQUEST)   | 65                               |
| Y990 MAINTAIN M-17 GAS MASKS  | 58                               |
| A6 COORDINATE WORK REQUESTS WITH OTHER CIVIL ENGINEERING ACTIVITIES                                       | 56                               |
| G174 COORDINATE WORK REQUESTS WITH CIVIL ENGINEERING SECTION  | 55                               |
| Y963 ERECT HARDBACK TENTS   | 52                               |
| Y965 ERECT TENTS, OTHER THAN HARDBACK TENTS   | 51                               |
| Y1041 PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT  | 44                               |
| E124 INITIATE AF FORMS 103 (BASE CIVIL ENGINEERING WORK CLEARANCE REQUEST)                                | 42                               |
| C50 EVALUATE COMPLETED SPECIAL PROJECTS, SUCH AS SELF-HELP WORK ORDERS                                    | 41                               |

TABLE IX  
SUPERVISORS CLUSTER  
STG 119

GROUP SIZE: 148  
PERCENT OF SAMPLE: 10%  
AVERAGE PAYGRADE: E-6

AVERAGE TAFMS: 174 MONTHS  
AVERAGE TICF: 140 MONTHS  
PERCENT IN 1ST ENL: 3%

| TASKS   | PERCENT<br>MEMBERS<br>PERFORMING |
|---|----------------------------------|
| B25 CORRECT SAFETY HAZARDS  | 89                               |
| B26 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS   | 85                               |
| A9 DETERMINE REQUIREMENTS FOR EQUIPMENT, SPACE, OR SUPPLIES   | 82                               |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION   | 82                               |
| A3 CONDUCT BRIEFINGS, OTHER THAN FOR TRAINING   | 82                               |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES   | 79                               |
| F140 COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)   | 79                               |
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING  | 78                               |
| A6 COORDINATE WORK REQUESTS WITH OTHER CIVIL ENGINEERING<br>ACTIVITIES  | 78                               |
| C59 EVALUATE PERSONNEL FOR COMPLIANCE WITH WORK STANDARDS   | 77                               |
| C73 WRITE EPRs  | 77                               |
| C65 IDENTIFY SAFETY HAZARDS   | 76                               |
| A22 SCHEDULE TDY, LEAVES, OR PASSES   | 75                               |
| B39 PARTICIPATE IN STAFF MEETINGS   | 74                               |
| A21 PREPARE WORK SCHEDULES  | 73                               |
| G185 ORDER MATERIALS  | 73                               |
| Y1031 PRACTICE COMSEC OR OPSEC DURING CONTINGENCY EXERCISES OR<br>OPERATIONS                                  | 70                               |
| G175 ESTABLISH TYPES OF MATERIALS REQUIRED FOR CARPENTRY PROJECTS   | 70                               |
| Y991 MAINTAIN PERSONAL DOCUMENTATION, SUCH AS SHOT RECORDS, DOG<br>TAGS, OR MILITARY IDENTIFICATION (ID) TAGS | 70                               |
| G180 ESTIMATE QUANTITIES OF MATERIALS REQUIRED FOR CARPENTRY<br>PROJECTS                                      | 68                               |
| A15 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES  | 68                               |
| B38 INTERPRET POLICIES OR DIRECTIVES FOR SUBORDINATES   | 67                               |
| B42 SUPERVISE CIVILIANS   | 66                               |

## TABLE X

PRIME BEEF IJT  
STG238

GROUP SIZE: 6  
PERCENT OF SAMPLE: LESS THAN 1%  
AVERAGE PAYGRADE: E-5

AVERAGE TAFMS: 100 MONTHS  
AVERAGE TICF: 98 MONTHS  
PERCENT IN 1ST ENL: 50%

| TASKS  | PERCENT<br>MEMBERS<br>PERFORMING |
|--|----------------------------------|
| Y960 DON OR DOFF CHEMICAL-WARFARE PERSONAL PROTECTIVE CLOTHING   | 100                              |
| Y971 FIRE M-16 RIFLES FOR QUALIFICATION  | 100                              |
| Y951 ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS  | 100                              |
| Y1041 PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT   | 83                               |
| Y990 MAINTAIN M-17 GAS MASKS   | 83                               |
| Y1052 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE M-16 RIFLES  | 83                               |
| Y991 MAINTAIN PERSONAL DOCUMENTATION, SUCH AS SHOT RECORDS, DOG<br>TAGS, OR MILITARY IDENTIFICATION (ID) TAG | 67                               |
| Y1030 PRACTICE COMSEC OR OPSEC DURING CONTINGENCY EXERCISES OR<br>OPERATIONS                                 | 67                               |
| Y963 ERECT HARDBACK TENTS  | 67                               |
| Y962 ERECT CAMOUFLAGE NETTING  | 67                               |
| Y965 ERECT TENTS, OTHER THAN HARDBACK TENTS  | 67                               |
| Y970 FIRE .38 OR .9MM CALIBER PISTOLS FOR QUALIFICATION  | 33                               |
| Y1030 PRACTICE COMMAND AND CONTROL TECHNIQUES  | 33                               |
| Y1035 PRACTICE FIRST-AID LIFESAVING TECHNIQUES   | 33                               |
| K451 INSTALL OR REPLACE DOOR CLOSERS   | 33                               |
| Y1034 PRACTICE EXPEDIENT METHODS   | 33                               |
| Y1014 PERFORM CAMP SECURITY  | 17                               |
| Y1020 PERFORM EXPLOSIVE ORDNANCE RECONNAISSANCE  | 17                               |
| Y984 LAY AM-2 MATTING FOR AIRCRAFT PARKING REVETMENTS  | 17                               |
| Y1025 PERFORM PALLET BUILD-UP FUNCTIONS  | 17                               |
| Y1036 PRACTICE PERSONAL HYGIENE TECHNIQUES UNDER FIELD CONDITIONS  | 17                               |
| Y1051 TEAR DOWN, INSPECT, CLEAN, AND REASSEMBLE .38 OR .9MM<br>CALIBER PISTOLS                               | 17                               |
| Y1010 PACK CONTINGENCY EQUIPMENT   | 17                               |
| Y1011 PALLETIZE CONTINGENCY EQUIPMENT  | 17                               |
| A18 PLAN SAFETY PROGRAMS   | 17                               |
| B34 IMPLEMENT SAFETY PROGRAMS OR PROCEDURES  | 17                               |

APPENDIX B

AFSC 552X0 STS ITEMS NOT SUPPORTED BY OSR DATA

TABLE B1

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | ING<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 7a(4) QUALITY CONTROL (AF FORM 1225)<br>E110 Complete AF Forms 1225 (Quality<br>Control Evaluation)        | A                               | 2.95         | 4                          | 10                          | 15                          | 2.48           |
| 7a(7) RECURRING WORK (AF FORM 1841)<br>E114 Complete AF Forms 1841 (Maintenance<br>Action Sheet)           | -                               | 1.40         | 2                          | 3                           | 7                           | 4.17           |
| 7b IN-SERVICE WORK PLAN (AF FORM 919)<br>E136 Review AF Forms 919 (BCE In-Service<br>Work Plan Work Sheet) | -                               | .75          | 1                          | 2                           | 5                           | 4.56           |
| 7f PROPERTY ACCOUNTABILITY<br>F151 Establish supply and equipment<br>accountability procedures             | A                               | 1.02         | 2                          | 6                           | 19                          | 5.24           |
| 8j ASBESTOS AWARENESS<br>K514 Perform asbestos abatement   | A                               | 3.34         | 8                          | 9                           | 6                           | 7.02           |
| 10h OPERATE TAR KETTLE<br>M587 Operate tar kettle pumps<br>M588 Operate tar kettles                        | a                               | 3.86<br>4.29 | 7<br>11                    | 6<br>11                     | 3<br>5                      | 6.14<br>6.15   |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 11a(3)COMPACT SUBGRADE  | 1a                              |             |                            |                             |                             |                |
| I230 Compact subgrade with mechanical<br>tampers                              |                                 | 3.40        | 10                         | 14                          | 9                           | 3.39           |
| I229 Compact subgrades with hand tampers                                      |                                 | 3.22        | 14                         | 18                          | 10                          | 2.75           |
| I231 Compact subgrades with pneumatic<br>tampers                              |                                 | 2.29        | 4                          | 5                           | 3                           | 3.51           |
| I232 Compact subgrades with vibrator tampers                                  |                                 | 2.88        | 10                         | 14                          | 7                           | 3.59           |
| -----   |                                 |             |                            |                             |                             |                |
| 11a(4) PLACE VAPOR BARRIERS   | 1a                              |             |                            |                             |                             |                |
| I273 Place vapor barriers on subgrade prior<br>to rebar or concrete placement |                                 | 3.89        | 13                         | 18                          | 13                          | 3.10           |
| -----   |                                 |             |                            |                             |                             |                |
| 11d INSTALL METAL FORMS   | a                               |             |                            |                             |                             |                |
| H188 Assemble metal footing forms   |                                 | 3.75        | 15                         | 16                          | 11                          | 3.25           |
| -----   |                                 |             |                            |                             |                             |                |
| 11i(2)(b)CALCIUM CHLORIDE   | a                               |             |                            |                             |                             |                |
| N607 Mix concrete with calcium chloride by<br>hand for cold weather placement |                                 | 3.72        | 5                          | 6                           | 4                           | 5.81           |
| -----   |                                 |             |                            |                             |                             |                |
| 11i(2)(c)COLOR  | a                               |             |                            |                             |                             |                |
| N600 Mix coloring pigments for concrete                                       |                                 | 2.51        | 9                          | 9                           | 6                           | 5.55           |
| -----   |                                 |             |                            |                             |                             |                |
| 11j(1)MEASURE INGREDIENTS TO MEET PROJECT<br>SPECIFICATIONS                   | 2b                              |             |                            |                             |                             |                |
| N604 Mix concrete for hot weather placement<br>with concrete mixes            |                                 | 4.22        | 16                         | 19                          | 10                          | 5.36           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 11j(2)(a)AIR-ENTERTAINMENT   | a                               |             |                            |                             |                             |                |
| N604 Mix concrete for hot weather<br>placement with concrete mixes                                 |                                 | 4.22        | 16                         | 19                          | 10                          | 5.36           |
| N606 Mix concrete with air-entertainment<br>agents for large mass placement<br>with concrete mixes |                                 | 3.05        | 3                          | 5                           | 3                           | 5.96           |
| 11j(2)(b)CALCIUM CHLORIDE  | a                               |             |                            |                             |                             |                |
| N608 Mix concrete with calcium chloride<br>for cold weather placement with<br>concrete mixes       |                                 | 3.75        | 4                          | 6                           | 4                           | 5.69           |
| 11j(2)(c)COLOR   | a                               |             |                            |                             |                             |                |
| N600 Mix coloring pigments for concrete  |                                 | 2.51        | 9                          | 9                           | 6                           | 5.55           |
| 11k PERFORM SLUMP TEST   | 1a                              |             |                            |                             |                             |                |
| N624 Perform slump tests on concrete   |                                 | 3.37        | 11                         | 10                          | 9                           | 4.80           |
| 11m(1)EXTERNAL VIBRATORS   | a                               |             |                            |                             |                             |                |
| I233 Consolidate concrete with external<br>vibrators   |                                 | 3.40        | 10                         | 11                          | 6                           | 3.96           |
| 11m(3)JITTERBUGS   | 2b                              |             |                            |                             |                             |                |
| I235 Consolidate concrete with jitterbugs  |                                 | 3.60        | 13                         | 17                          | 12                          | 3.41           |
| 11m(4)SPADING TOOLS  | a                               |             |                            |                             |                             |                |
| I236 Consolidate concrete with spading tools   |                                 | 3.55        | 13                         | 17                          | 10                          | 3.12           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 11o(7)POWER TROWELING<br>I254 Finish concrete with power tools   | a                               | 4.85         | 12                         | 19                          | 11                          | 5.35           |
| -----  |                                 |              |                            |                             |                             |                |
| 11p(1)(a)BUILDING PAPER<br>I241 Cure concrete with building paper  | a                               | 2.62         | 3                          | 4                           | 4                           | 2.96           |
| -----  |                                 |              |                            |                             |                             |                |
| 11p(1)(b)BURLAP<br>I242 Cure concrete with burlap systems  | a                               | 3.00         | 4                          | 7                           | 5                           | 2.93           |
| -----  |                                 |              |                            |                             |                             |                |
| 11p(1)(d)SAND<br>I244 Cure concrete with sand  | a                               | 2.86         | 4                          | 4                           | 5                           | 3.07           |
| -----  |                                 |              |                            |                             |                             |                |
| 11p(2)CONTINUOUS WATER SPRAY<br>I239 Cure concrete by continuous water spray   | a                               | 2.83         | 10                         | 12                          | 5                           | 3.01           |
| -----  |                                 |              |                            |                             |                             |                |
| 11p(3)USING SPRAY MEMBRANE<br>I245 Cure concrete with spray membrane coverings   | a                               | 2.74         | 3                          | 5                           | 4                           | 3.39           |
| -----  |                                 |              |                            |                             |                             |                |
| 11s(2)EPOXY FILLERS<br>I275 Repair concrete with epoxy-resin base materials  | a                               | 2.80         | 10                         | 12                          | 7                           | 4.67           |
| -----  |                                 |              |                            |                             |                             |                |
| 11t APPLY WATERPROOF SEALANT TO CONCRETE<br>I215 Apply waterproof sealant to concrete slabs<br>I216 Apply waterproof sealant to concrete walls | a                               | 2.92<br>2.89 | 15<br>14                   | 16<br>16                    | 14<br>11                    | 2.64<br>3.00   |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS               | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|-----------------------------------|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|                                   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 12a(1) GIRDERS                    | b                               |             |                            |                             |                             |                |
| J351 Lay out built-up girders     |                                 | 3.37        | 9                          | 12                          | 9                           | 5.50           |
| J378 Lay out solid girders        |                                 | 2.85        | 9                          | 11                          | 9                           | 5.05           |
| J290 Construct built-up girders   |                                 | 4.08        | 19                         | 19                          | 13                          | 4.70           |
| 12b(1) GIRDERS                    | b                               |             |                            |                             |                             |                |
| J306 Install built-up girders     |                                 | 3.98        | 16                         | 17                          | 10                          | 4.72           |
| J337 Install solid girders        |                                 | 3.51        | 9                          | 12                          | 7                           | 4.70           |
| 12b(3) SILLS                      | 2b                              |             |                            |                             |                             |                |
| J307 Install built-up sills       |                                 | 3.91        | 17                         | 17                          | 11                          | 4.29           |
| J321 Install or replace box sills |                                 | 3.78        | 12                         | 16                          | 9                           | 4.62           |
| J338 Install solid sills          |                                 | 3.69        | 11                         | 15                          | 9                           | 4.42           |
| 12c(1) GIRDERS                    | a                               |             |                            |                             |                             |                |
| J394 Replace built-up girders     |                                 | 2.94        | 7                          | 9                           | 8                           | 5.70           |
| J409 Replace solid girders        |                                 | 2.69        | 4                          | 7                           | 5                           | 5.77           |
| 12c(3) SILLS                      | b                               |             |                            |                             |                             |                |
| J395 Replace built-up sills       |                                 | 3.20        | 7                          | 9                           | 8                           | 5.40           |
| J410 Replace solid sills          |                                 | 2.83        | 5                          | 9                           | 6                           | 5.53           |
| J321 Install or replace box sills |                                 | 3.78        | 12                         | 16                          | 9                           | 4.62           |
| 12c(4) SUBFLOORS                  | b                               |             |                            |                             |                             |                |
| J414 Replace subfloors            |                                 | 3.83        | 13                         | 18                          | 11                          | 4.86           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 12f INSTALL TERMITE SHIELDS<br>J343 Install termite shields | b                               | 4.55        | 15                         | 18                          | 10                          | 3.73           |
| 12i(1) SOLE PLATES<br>J408 Replace sole plates              | b                               | 3.51        | 11                         | 18                          | 10                          | 5.44           |
| 12i(6) CORNER POSTS<br>J398 Replace corner posts            | b                               | 3.58        | 11                         | 16                          | 10                          | 5.43           |
| 12j(4) BRACING<br>J349 Lay out bridging                     | 2b                              | 4.20        | 12                         | 15                          | 10                          | 4.70           |
| 12k(4) BRACING<br>J322 Install or replace bracing           | 2b                              | 3.94        | 13                         | 19                          | 12                          | 4.30           |
| 12l(1) JOISTS<br>J396 Replace ceiling joists                | b                               | 4.06        | 14                         | 18                          | 11                          | 5.36           |
| 12l(3) TRIMMERS<br>J396 Replace ceiling joists              | b                               | 4.06        | 14                         | 18                          | 11                          | 5.36           |
| 12l(4) BRACING<br>J322 Install or replace bracing           | b                               | 3.94        | 13                         | 19                          | 12                          | 4.30           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 12n(3) BRACING  | a                               |             |                            |                             |                             |                |
| T803 Install or replace worn or damaged sections of prefabricated or pre-engineered buildings |                                 | 2.52        | 4                          | 7                           | 3                           | 5.81           |
| J347 Install wind bracing   |                                 | 3.86        | 16                         | 19                          | 12                          | 4.60           |
| 12n(4) HEADERS  | a                               |             |                            |                             |                             |                |
| T803 Install or replace worn or damaged sections of prefabricated or pre-engineered buildings |                                 | 2.52        | 4                          | 7                           | 3                           | 5.81           |
| 12n(6) CORNER POSTS   | a                               |             |                            |                             |                             |                |
| T803 Install or replace worn or damaged sections of prefabricated or pre-engineered buildings |                                 | 2.52        | 4                          | 7                           | 3                           | 5.81           |
| 12o(1) SOLE PLATES  | -                               |             |                            |                             |                             |                |
| J408 Replace sole plates  |                                 | 3.51        | 11                         | 18                          | 10                          | 5.44           |
| T803 Install or replace worn or damaged sections of prefabricated or pre-engineered buildings |                                 | 2.52        | 4                          | 7                           | 3                           | 5.81           |
| 12o(6) CORNER POSTS   | -                               |             |                            |                             |                             |                |
| J398 Replace corner posts   |                                 | 3.58        | 11                         | 16                          | 10                          | 5.43           |
| T803 Install or replace worn or damaged sections of prefabricated or pre-engineered buildings |                                 | 2.52        | 4                          | 7                           | 3                           | 5.81           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 12p(4) BRACING<br>J322 Install or replace bridging   | -                               | 3.94         | 13                         | 19                          | 12                          | 4.30           |
| 12q(1) JOISTS<br>T803 Install or replace worn or damaged<br>sections of prefabricated or pre-<br>engineered buildings                                | a                               | 2.52         | 4                          | 7                           | 3                           | 5.81           |
| 12q(2) HEADERS<br>T803 Install or replace worn or damaged<br>sections of prefabricated or pre-<br>engineered buildings                               | a                               | 2.52         | 4                          | 7                           | 3                           | 5.81           |
| 12q(4) BRACING<br>T803 Install or replace worn or damaged<br>sections of prefabricated or pre-<br>engineered buildings<br>J349 Lay out bridging      | a                               | 2.52<br>4.20 | 4<br>12                    | 7<br>15                     | 3<br>10                     | 5.81<br>4.70   |
| 12r(1) JOISTS<br>J396 Replace ceiling joists<br>T803 Install or replace worn or damaged<br>sections of prefabricated or pre-<br>engineered buildings | -                               | 4.06         | 14                         | 18                          | 11                          | 5.36           |
|  |                                 | 2.52         | 4                          | 7                           | 3                           | 5.81           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 12r(2) HEADERS  | -                               |             |                            |                             |                             |                |
| T803 Install or replace worn or damaged sections of prefabricated or pre-engineered buildings |                                 | 2.52        | 4                          | 7                           | 3                           | 5.81           |
| 12r(4) BRACING  | -                               |             |                            |                             |                             |                |
| T803 Install or replace worn or damaged sections of prefabricated or pre-engineered buildings |                                 | 2.52        | 4                          | 7                           | 3                           | 5.81           |
| J322 Install or replace bridging  |                                 | 3.94        | 13                         | 19                          | 12                          | 4.30           |
| 12u(2) RIDGEBOARDS  | b                               |             |                            |                             |                             |                |
| J407 Replace ridgeboards  |                                 | 3.03        | 7                          | 11                          | 7                           | 6.23           |
| 12x TRUSS REPAIR  | a                               |             |                            |                             |                             |                |
| J412 Replace structural members of trusses  |                                 | 3.40        | 8                          | 11                          | 7                           | 6.17           |
| J416 Replace trusses  |                                 | 3.18        | 7                          | 10                          | 7                           | 6.61           |
| J392 Repair trusses   |                                 | 4.03        | 14                         | 15                          | 12                          | 5.78           |
| J326 Install or replace gussets   |                                 | 3.45        | 9                          | 14                          | 8                           | 4.62           |
| 12y TRUSS INSPECTION  | a                               |             |                            |                             |                             |                |
| J389 Perform scheduled inspections of roofs or trusses  |                                 | 3.62        | 11                         | 15                          | 12                          | 5.31           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 12z METAL PRE-ENGINEERED BUILDINGS ASSEMBLY                   | a                               |             |                            |                             |                             |                |
| T797 Assemble metal pre-engineered buildings                  |                                 | 2.63        | 6                          | 10                          | 7                           | 6.18           |
| T800 Erect metal pre-engineered buildings                     |                                 | 2.68        | 4                          | 7                           | 5                           | 6.40           |
| J327 Install or replace purlins                               |                                 | 3.35        | 10                         | 13                          | 9                           | 5.02           |
| J371 Lay out purlins  |                                 | 3.11        | 9                          | 11                          | 8                           | 5.24           |
| K470 Install or replace metal siding                          |                                 | 3.48        | 13                         | 14                          | 7                           | 4.73           |
| 13g(2) SOFFITS  | 2b                              |             |                            |                             |                             |                |
| K505 Lay out cornices   |                                 | 2.52        | 5                          | 7                           | 5                           | 5.64           |
| K448 Install or replace cornices                              |                                 | 2.98        | 9                          | 11                          | 7                           | 4.94           |
| 13g(3) CORNER BOARDS  | 2b                              |             |                            |                             |                             |                |
| K447 Install or replace corner boards                         |                                 | 3.66        | 12                         | 16                          | 11                          | 4.27           |
| 13g(4) WATER TABLES   | 2b                              |             |                            |                             |                             |                |
| K495 Install or replace water tables                          |                                 | 1.88        | 3                          | 5                           | 4                           | 4.37           |
| 13h(3) CORNER BOARDS  | b                               |             |                            |                             |                             |                |
| K447 Install or replace corner boards                         |                                 | 3.66        | 12                         | 16                          | 11                          | 4.27           |
| 14e PREPARE MORTAR FOR COLD WEATHER                           | a                               |             |                            |                             |                             |                |
| P704 Prepare mortar for cold weather with<br>calcium chloride |                                 | 4.05        | 5                          | 6                           | 5                           | 5.31           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*          | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF**       |
|---|---------------------------------|----------------------|----------------------------|-----------------------------|-----------------------------|----------------------|
|   |                                 |                      | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                      |
| 15b(2) LAY OUT DRY COURSE<br>P669 Chase bonds   | 2b                              | 4.37                 | 14                         | 18                          | 12                          | 4.89                 |
| 15b(5) CONSTRUCT CORNER LEADS<br>P675 Construct corner leads with block,<br>brick, or structural tiles  | 1a                              | 4.91                 | 13                         | 17                          | 10                          | 6.17                 |
| 15b(9) CHECK MORTAR JOINTS FOR THICKNESS<br>P702 Perform thickness checks of mortar<br>joints with story poles  | 2b                              | 5.03                 | 14                         | 18                          | 12                          | 4.44                 |
| 15b(10)(a) TIE BARS<br>P683 Install durawall<br>P684 Install horizontal reinforcements<br>in block walls<br>P687 Install metal tie bars between<br>intersecting block walls | 1a                              | 3.35<br>4.46<br>4.28 | 6<br>12<br>9               | 12<br>15<br>13              | 7<br>9<br>9                 | 4.88<br>4.52<br>4.74 |
| 15b(10)(b) REINFORCEMENT BAR<br>P691 Install rebar in load-bearing<br>block walls   | 1a                              | 4.65                 | 11                         | 17                          | 9                           | 4.85                 |
| 15b(10)(c) CONTROL JOINTS<br>P682 Install control joints in block<br>or brick   | 1a                              | 4.18                 | 8                          | 9                           | 8                           | 5.55                 |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 15d(1) CLEAN MORTAR STAINS<br>P673 Clean mortar stains on tile and block<br>surfaces   | 2b                              | 4.08         | 12                         | 16                          | 9                           | 4.33           |
| 15d(2) REPOINT MORTAR JOINTS<br>P707 Repoint block, structural tile, or<br>brick mortar joints   | 1a                              | 3.83         | 9                          | 13                          | 9                           | 4.42           |
| 15d(3) REPLACE DAMAGED BLOCK/TILE<br>P706 Replace cracked or damaged block,<br>brick or structural tiles   | 1a                              | 3.92         | 15                         | 19                          | 12                          | 5.21           |
| 15d(4) APPLY SEALANT TO BLOCK/TILE<br>P667 Apply sealants to block or brick<br>construction<br>P708 Reseal block, structural tile, or<br>brick mortar joints                       | 1a                              | 3.46<br>3.86 | 11<br>9                    | 15<br>11                    | 10<br>8                     | 3.92<br>4.32   |
| 16a(1) LAY OUT DRY COURSE<br>P669 Chase bonds  | 2b                              | 4.37         | 14                         | 18                          | 12                          | 4.89           |
| 16a(5) CONSTRUCT CORNER LEADS<br>P675 Construct corner leads with block,<br>brick, or structural tiles<br>P689 Install or replace glazed brick<br>(glazed structural facing block) | 1a                              | 4.91<br>2.74 | 13<br>3                    | 17<br>6                     | 10<br>5                     | 6.17<br>5.79   |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*          | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF**       |
|---|---------------------------------|----------------------|----------------------------|-----------------------------|-----------------------------|----------------------|
|   |                                 |                      | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                      |
| 16a(8) CHECK JOINT THICKNESS<br>P702 Perform thickness check of mortar<br>joints  | 2b                              | 5.03                 | 14                         | 18                          | 12                          | 4.44                 |
| 16a(10) CONSTRUCT WINDOW SILLS<br>P674 Construct window sills   | a                               | 4.05                 | 5                          | 8                           | 6                           | 6.19                 |
| 16a(11)(a) LINTELS<br>P686 Install lintels for block or brick<br>construction<br>P690 Install precast concrete lintels<br>P692 Install steel lintels for block or<br>brick construction | 1a                              | 4.62<br>3.68<br>4.14 | 9<br>5<br>5                | 15<br>10<br>9               | 9<br>5<br>8                 | 5.56<br>5.17<br>5.06 |
| 16a(11)(b) VENEER TIE BARS<br>P688 Install metal-brick veneer ties  | 1a                              | 3.22                 | 3                          | 6                           | 5                           | 4.80                 |
| 16a(11)(c) CONTROL JOINTS<br>P682 Install control joints in block<br>or brick   | 1a                              | 4.18                 | 8                          | 9                           | 8                           | 5.55                 |
| 16c(1)(a) ACID<br>P671 Clean mortar stains from brick<br>surfaces with acid   | 2b                              | 4.20                 | 10                         | 12                          | 9                           | 4.79                 |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 16c(1)(b) SOAP, WATER, AND BRUSH<br>P672 Clean mortar stains from brick sur-<br>faces with materials other than acid | 2b                              | 3.85        | 12                         | 13                          | 8                           | 4.41           |
| -----  |                                 |             |                            |                             |                             |                |
| 16c(2) REPOINT MORTAR JOINTS   | 1a                              |             |                            |                             |                             |                |
| P707 Repoint block, structural tile, or<br>brick mortar joints   |                                 | 3.83        | 9                          | 13                          | 9                           | 4.42           |
| -----  |                                 |             |                            |                             |                             |                |
| 16c(3) REPLACE DAMAGED BRICK   | 1a                              |             |                            |                             |                             |                |
| P706 Replace cracked or damaged block,<br>brick, or structural tiles   |                                 | 3.92        | 15                         | 19                          | 12                          | 5.21           |
| -----  |                                 |             |                            |                             |                             |                |
| 16c(4) APPLY SEALANT TO BRICK  | 1a                              |             |                            |                             |                             |                |
| P667 Apply sealants to block or brick<br>construction  |                                 | 3.46        | 11                         | 15                          | 10                          | 3.92           |
| P708 Reseal block, structural tile, or<br>brick mortar joints  |                                 | 3.86        | 9                          | 11                          | 8                           | 4.32           |
| -----  |                                 |             |                            |                             |                             |                |
| 17a(1)(a) AF FORM 1059   | -                               |             |                            |                             |                             |                |
| M559 Inspect built-up roofs  |                                 | 3.94        | 15                         | 17                          | 18                          | 5.76           |
| -----  |                                 |             |                            |                             |                             |                |
| 17a(1)(b) AF FORM 1060   | -                               |             |                            |                             |                             |                |
| M559 Inspect built-up roofs  |                                 | 3.94        | 15                         | 17                          | 18                          | 5.76           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS                             | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 17a(2)(a) ASPHALT                               | a                               |             |                            |                             |                             |                |
| M557 Identify asphalt or coal tar products      |                                 | 3.95        | 16                         | 14                          | 14                          | 5.00           |
| M559 Inspect built-up roofs                     |                                 | 3.94        | 15                         | 17                          | 18                          | 5.76           |
| 17a(2)(b) COAL TAR                              | a                               |             |                            |                             |                             |                |
| M557 Identify asphalt or coal tar products      |                                 | 3.95        | 16                         | 14                          | 14                          | 5.00           |
| M559 Inspect built-up roofs                     |                                 | 3.94        | 15                         | 17                          | 18                          | 5.76           |
| 17b(2)(a)1 DECKING                              | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems           |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M566 Install or replace decking                 |                                 | 4.02        | 17                         | 16                          | 8                           | 5.36           |
| 17b(2)(a)2 INSULATION                           | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems           |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M571 Install or replace insulation              |                                 | 3.68        | 19                         | 19                          | 7                           | 4.81           |
| 17b(2)(a)3 MEMBRANE                             | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems           |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M563 Install built-up roofing systems membranes |                                 | 4.14        | 12                         | 14                          | 7                           | 6.04           |
| 17b(2)(a)4a BITUMINOUS                          | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems           |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 17b(2)(a)5 PENETRATIONS   | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                                 |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M584 Install penetrations   |                                 | 1.92        | 1                          | 2                           | 3                           | 6.07           |
| 17b(2)(a)6 CANT STRIPS  | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                                 |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M564 Install or replace cant strips                                   |                                 | 2.72        | 7                          | 8                           | 6                           | 5.38           |
| 17b(2)(a)7a COATING   | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                                 |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M572 Install or replace latex-coated roofing                          |                                 | 2.58        | 7                          | 6                           | 4                           | 5.45           |
| M582 Install or replace surfacing materials                           |                                 | 2.63        | 6                          | 7                           | 4                           | 5.50           |
| 17b(2)(a)7b GRAVEL  | a                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                                 |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M582 Install or replace surfacing materials                           |                                 | 2.63        | 6                          | 7                           | 4                           | 5.50           |
| 17b(2)(b) STRUCTURAL STANDING SEAM                                    | -                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                                 |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| 17b(2)(c) ETHYLENE PROPYLENE DIENE MONOMER (EPDM)                     | -                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                                 |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M568 Install or replace ethylene polypropylene diene monomers (EPDMs) |                                 | 1.58        | 3                          | 3                           | 3                           | 6.00           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 17b(2)(d) POLYVINYL CHLORIDE                               | -                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                      |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M578 Install or replace polyvinyl chloride (PVC)           |                                 | 1.77        | 2                          | 3                           | 2                           | 5.68           |
| 17b(2)(e) MODIFIED BITUMEN                                 | -                               |             |                            |                             |                             |                |
| M560 Install built-up roofing systems                      |                                 | 4.14        | 11                         | 12                          | 6                           | 6.67           |
| M575 Install or replace modified bituminous systems        |                                 | 2.65        | 4                          | 6                           | 3                           | 5.87           |
| 17b(2)(a) DECKING  | -                               |             |                            |                             |                             |                |
| M566 Install or replace deckings                           |                                 | 4.02        | 17                         | 16                          | 8                           | 5.36           |
| 17c(2)(b) INSULATION                                       | -                               |             |                            |                             |                             |                |
| M571 Install or replace insulation                         |                                 | 3.68        | 19                         | 19                          | 7                           | 4.81           |
| 17c(2)(c) MEMBRANE   | a                               |             |                            |                             |                             |                |
| M563 Install or replace built-up roofing systems membranes |                                 | 4.14        | 12                         | 14                          | 7                           | 6.04           |
| 17c(2)(f) CANT STRIPS                                      | -                               |             |                            |                             |                             |                |
| M564 Install or replace cant strips                        |                                 | 2.72        | 7                          | 8                           | 6                           | 5.38           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 17c(2)(g)1 COATING  | -                               |             |                            |                             |                             |                |
| M572 Install or replace latex-coated roofing                  |                                 | 2.58        | 7                          | 6                           | 4                           | 5.45           |
| M582 Install or replace surfacing materials                   |                                 | 2.63        | 6                          | 7                           | 4                           | 5.50           |
| 17c(2)(g)2 GRAVEL   | -                               |             |                            |                             |                             |                |
| M582 Install or replace surfacing materials                   |                                 | 2.63        | 6                          | 7                           | 4                           | 5.50           |
| 17e(2)(a) SLATE   | -                               |             |                            |                             |                             |                |
| K481 Install or replace slate roofing                         |                                 | 1.66        | 6                          | 7                           | 4                           | 6.51           |
| 17e(2)(b) CLAY  | -                               |             |                            |                             |                             |                |
| K446 Install or replace clay tile shingles                    |                                 | 2.00        | 10                         | 10                          | 7                           | 5.84           |
| 17e(2)(c) WOOD  | -                               |             |                            |                             |                             |                |
| K501 Install or replace wooden roof shingles                  |                                 | 2.42        | 7                          | 9                           | 4                           | 5.46           |
| 17e(2)(g) ETHYLENE PROPYLENE DIENE MONOMER (EPDM)             | -                               |             |                            |                             |                             |                |
| M568 Install or replace ethylene polypropylene diene monomers |                                 | 1.58        | 3                          | 3                           | 3                           | 6.00           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 17e(2)(h) POLYVINYL CHLORIDE (PVC)<br>M578 Install or replace polyvinyl<br>chloride (PVC)  | -                               | 1.77         | 2                          | 3                           | 2                           | 5.68           |
| 17e(2)(j) POLYURETHANE FOAM (PUF)<br>M581 Install or replace spray poly-<br>urethane foams<br>M593 Repair polyurethane foam roofing<br>systems | -                               | 1.69<br>1.85 | 3<br>2                     | 4<br>3                      | 2<br>1                      | 5.80<br>5.96   |
| 17e(2)(1) FLUID APPLIED<br>M565 Install or replace cold-process<br>roofing materials<br>M573 Install or replace liquid coatings                | -                               | 4.32<br>2.88 | 16<br>12                   | 18<br>14                    | 10<br>7                     | 5.23<br>5.19   |
| 18a(4) WALL FABRIC<br>L544 Install or replace wallpaper  | -                               | 2.69         | 15                         | 19                          | 9                           | 6.26           |
| 18b(4) WALL FABRIC<br>L544 Install or replace wallpaper  | -                               | 2.69         | 15                         | 19                          | 9                           | 6.26           |
| 18c(1) LINOLEUM<br>K468 Install or replace linoleum covering   | a                               | 3.91         | 12                         | 18                          | 9                           | 5.23           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS                                  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 18c(4) WOOD  | a                               |             |                            |                             |                             |                |
| K474 Install or replace parquet hardwood             |                                 | 3.34        | 10                         | 13                          | 8                           | 6.20           |
| K503 Install tongue and groove flooring              |                                 | 3.54        | 9                          | 13                          | 6                           | 5.56           |
| 18d(2) WOOD  | a                               |             |                            |                             |                             |                |
| K474 Install or replace parquet hardwood             |                                 | 3.34        | 10                         | 13                          | 8                           | 6.20           |
| K517 Repair hardwood flooring                        |                                 | 3.58        | 11                         | 14                          | 10                          | 5.45           |
| K521 Replace tongue and groove flooring              |                                 | 3.72        | 10                         | 13                          | 7                           | 5.43           |
| 18d(3) LINOLEUM                                      | a                               |             |                            |                             |                             |                |
| K468 Install or replace linoleum covering            |                                 | 3.91        | 12                         | 18                          | 9                           | 5.23           |
| 18m INSTALL VENETIAN BLINDS                          | -                               |             |                            |                             |                             |                |
| K492 Install or replace venetian blinds              |                                 | 2.45        | 13                         | 18                          | 9                           | 3.83           |
| 18n REPAIR VENETIAN BLINDS                           | -                               |             |                            |                             |                             |                |
| K492 Install or replace venetian blinds              |                                 | 2.45        | 13                         | 18                          | 9                           | 3.83           |
| K519 Repair venetian blinds                          |                                 | 2.02        | 8                          | 10                          | 6                           | 4.75           |
| 19a INSTALL CORNER BEADS                             | 2b                              |             |                            |                             |                             |                |
| O645 Install corner beads on plaster or stucco walls |                                 | 3.66        | 10                         | 12                          | 7                           | 4.87           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 19a(2)(a) GYPSUM<br>0646 Install or replace gypsum-board<br>lath                    | 2b                              | 3.08        | 9                          | 10                          | 7                           | 4.86           |
| 19a(2)(b) METAL<br>0648 Install or replace metal lath                               | 2b                              | 3.38        | 9                          | 12                          | 7                           | 4.76           |
| 19a(3) INSTALL MEMBRANE PAPER<br>0647 Install or replace membrane paper             | a                               | 3.14        | 6                          | 7                           | 5                           | 4.61           |
| 19a(4) INSTALL GROUNDS<br>0651 Install screeds or grounds for plaster<br>or stucco  | 2b                              | 3.18        | 8                          | 8                           | 6                           | 5.01           |
| 19a(5) SET BASE SCREEDS<br>0651 Install screeds or grounds for plaster<br>or stucco | 2b                              | 3.18        | 8                          | 8                           | 6                           | 5.01           |
| 19a(6) INSTALL CONTROL JOINTS<br>0644 Install control joints in plaster             | 1a                              | 3.26        | 6                          | 7                           | 5                           | 5.26           |
| 19b(2) BROWN COAT<br>N612 Mix plaster by hand for brown coats                       | 2b                              | 3.97        | 16                         | 19                          | 10                          | 4.87           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 19b(4) FINISH COAT<br>N613 Mix plaster by hand for finish coats<br>with lime or white Keene cement  | 2b                              | 4.03         | 17                         | 19                          | 10                          | 5.18           |
| 19c(1) SCRATCH COAT<br>0617 Mix plaster or stucco with mortar<br>mixers for scratch coats   | 2b                              | 3.26         | 9                          | 10                          | 7                           | 4.86           |
| 19c(2) BROWN COAT<br>N615 Mix plaster or stucco with mortar<br>mixers for brown coats   | 2b                              | 3.29         | 9                          | 11                          | 8                           | 4.89           |
| 19c(3) FINISH COAT<br>N616 Mix plaster or stucco with mortar<br>mixers for finish coats   | 2b                              | 3.23         | 10                         | 13                          | 8                           | 5.02           |
| 19d(1) METAL LATH<br>0630 Apply scratch coats to gypsum<br>surfaces for plaster<br>0634 Apply scratch coats to metal-lath<br>surfaces for plaster | 1a                              | 3.51<br>3.66 | 9<br>10                    | 11<br>13                    | 8<br>8                      | 5.33<br>5.39   |
| 19d(2) GYPSUM LA,H<br>0630 Apply scratch coats to gypsum<br>surfaces for plaster  |                                 | 3.51         | 9                          | 11                          | 8                           | 5.33           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 19d(3) MASONRY SURFACES  |                                 |             |                            |                             |                             |                |
| 0630 Apply scratch coats to gypsum surfaces for plaster                | a                               | 3.51        | 9                          | 11                          | 8                           | 5.33           |
| 0632 Apply scratch coats to masonry sur-<br>faces for plaster          |                                 | 3.80        | 13                         | 15                          | 10                          | 5.33           |
| -----  |                                 |             |                            |                             |                             |                |
| 19e APPLY BROWN COAT OF PLASTER  |                                 |             |                            |                             |                             |                |
| 0628 Apply brown coats over scratch coats to<br>plaster                | 1a                              | 3.72        | 13                         | 16                          | 10                          | 5.18           |
| 0666 Scarify brown or scratch coats                                    |                                 | 3.31        | 6                          | 9                           | 7                           | 4.03           |
| 0642 Dampen scratch or brown coats                                     |                                 | 2.98        | 11                         | 14                          | 10                          | 3.85           |
| -----  |                                 |             |                            |                             |                             |                |
| 19f REMOVE BASE SCREEDS  |                                 |             |                            |                             |                             |                |
| 0653 Remove base screeds   | 2b                              | 2.95        | 7                          | 9                           | 6                           | 4.39           |
| -----  |                                 |             |                            |                             |                             |                |
| 19g APPLY FINISH COAT OF PLASTER                                       |                                 |             |                            |                             |                             |                |
| 0636 Apply smooth finish coat textures over<br>brown coats to plaster  | 1a                              | 3.85        | 11                         | 15                          | 10                          | 6.03           |
| 0666 Scarify brown or scratch coats                                    |                                 | 3.31        | 6                          | 9                           | 7                           | 4.03           |
| 0642 Dampen scratch or brown coats                                     |                                 | 2.98        | 11                         | 14                          | 10                          | 3.85           |
| -----  |                                 |             |                            |                             |                             |                |
| 19h APPLY TEXTURED FINISH COAT OF PLASTER                              |                                 |             |                            |                             |                             |                |
| 0638 Apply texture finish coat textures over<br>brown coats to plaster | -                               | 3.55        | 10                         | 11                          | 8                           | 6.12           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 19i APPLY COLORED FINISH COAT OF PLASTER  | a                               |             |                            |                             |                             |                |
| 0626 Add color finish coats for plaster   |                                 | 2.35        | 5                          | 5                           | 3                           | 5.24           |
| 19j CURE PLASTER  | 2b                              |             |                            |                             |                             |                |
| 0640 Cure plaster or stucco surfaces with burlap                                |                                 | 2.40        | 4                          | 4                           | 4                           | 5.13           |
| 0641 Cure plaster or stucco surfaces with continuous water                      |                                 | 2.34        | 6                          | 6                           | 6                           | 4.97           |
| 19k(1) INSPECT FOR DAMAGE   | a                               |             |                            |                             |                             |                |
| 0643 Inspect plaster or stucco surfaces for map shrinkage, or structural cracks |                                 | 3.26        | 12                         | 14                          | 13                          | 4.21           |
| 19k(3)(a) SHRINKAGE   | a                               |             |                            |                             |                             |                |
| 0660 Repair shrinkage cracks in plaster walls or ceilings                       |                                 | 3.92        | 15                         | 18                          | 8                           | 4.56           |
| 19k(3)(c) STRUCTURAL  | a                               |             |                            |                             |                             |                |
| 0662 Repair structural cracks in plaster walls or ceilings                      |                                 | 4.11        | 14                         | 17                          | 9                           | 4.96           |
| 20a(1) INSTALL CORNER BEADS   | -                               |             |                            |                             |                             |                |
| 0645 Install corner beads on plaster or stucco walls                            |                                 | 3.66        | 10                         | 12                          | 7                           | 4.87           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 20a(2)(a) GYPSUM   | -                               |             |                            |                             |                             |                |
| 0646 Install or replace gypsum-board lath                            |                                 | 3.08        | 9                          | 10                          | 7                           | 4.86           |
| 20a(2)(b) METAL  | -                               |             |                            |                             |                             |                |
| 0648 Install or replace metal lath                                   |                                 | 3.38        | 9                          | 12                          | 7                           | 4.76           |
| 20a(2)(c) WIRE   | a                               |             |                            |                             |                             |                |
| 0652 Install stucco wire lath, other<br>than prefabricated wire lath |                                 | 2.65        | 6                          | 7                           | 5                           | 5.08           |
| 0650 Install prefabricated stucco wire<br>lath                       |                                 | 3.08        | 7                          | 8                           | 6                           | 4.73           |
| 20a(3) INSTALL MEMBRANE PAPER  | -                               |             |                            |                             |                             |                |
| 0647 Install or replace membrane paper                               |                                 | 3.14        | 6                          | 7                           | 5                           | 4.61           |
| 20a(4) INSTALL GROUNDS   | a                               |             |                            |                             |                             |                |
| 0651 Install screeds or grounds for plaster<br>or stucco             |                                 | 3.18        | 8                          | 8                           | 6                           | 5.01           |
| 20a(5) SET BASE SCREEDS  | -                               |             |                            |                             |                             |                |
| 0651 Install screeds or grounds for<br>plaster or stucco             |                                 | 3.18        | 8                          | 8                           | 6                           | 5.01           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 20a(6) INSTALL CONTROL JOINTS<br>0644 Install control joints in plaster or<br>stucco walls   | -                               | 3.26        | 6                          | 7                           | 5                           | 5.26           |
| 20b(1) SCRATCH COAT<br>N618 Mix stucco by hand   | 1a                              | 3.38        | 13                         | 14                          | 9                           | 4.98           |
| 20b(2) BROWN COAT<br>N618 Mix stucco by hand   | 1a                              | 3.38        | 13                         | 14                          | 9                           | 4.98           |
| 20b(3) FINISH COAT<br>N618 Mix stucco by hand  | 1a                              | 3.38        | 13                         | 14                          | 9                           | 4.98           |
| 20b(4) SURFACE BONDING OF NEW SURFACES<br>N620 Mix surface bonding by hand for new<br>surfaces   | -                               | 2.80        | 5                          | 8                           | 7                           | 4.92           |
| 20b(5) SURFACE BONDING OF OLD SURFACES USING<br>ACRYLIC MODIFIERS<br>N621 Mix surface bonding by hand for old<br>surfaces with acrylic modifiers | -                               | 2.18        | 3                          | 5                           | 4                           | 5.37           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 20c(1) SCRATCH COAT  | -                               |             |                            |                             |                             |                |
| N617 Mix plaster or stucco with mortar<br>mixers for scratch coats |                                 | 3.26        | 9                          | 10                          | 7                           | 4.86           |
| N619 Mix stucco with mortar mixers                                 |                                 | 3.15        | 6                          | 8                           | 6                           | 4.77           |
| 20c(2) BROWN COAT  | -                               |             |                            |                             |                             |                |
| N615 Mix plaster or stucco with mortar<br>mixers for brown coat    |                                 | 3.29        | 9                          | 11                          | 8                           | 4.89           |
| N619 Mix stucco with mortar mixers                                 |                                 | 3.15        | 6                          | 8                           | 6                           | 4.77           |
| 20c(3) FINISH COAT   | -                               |             |                            |                             |                             |                |
| 0616 Mix plaster or stucco with mortar<br>mixes for finish coat    |                                 | 3.23        | 10                         | 13                          | 8                           | 5.02           |
| N619 Mix stucco with mortar mixers                                 |                                 | 3.15        | 6                          | 8                           | 6                           | 4.77           |
| 20d(1) METAL LATH  | 1a                              |             |                            |                             |                             |                |
| 0635 Apply scratch coats to metal-lath<br>surfaces for stucco      |                                 | 3.18        | 7                          | 9                           | 5                           | 5.51           |
| 0631 Apply scratch coats to gypsum<br>surfaces for stucco          |                                 | 2.98        | 7                          | 8                           | 5                           | 5.39           |
| 20d(2) GYPSUM LATH   | -                               |             |                            |                             |                             |                |
| 0631 Apply scratch coats to gypsum<br>surfaces for stucco          |                                 | 2.98        | 7                          | 8                           | 5                           | 5.39           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 20d(3) MASONRY SURFACES   | 1a                              |             |                            |                             |                             |                |
| 0633 Apply scratch coats to masonry surface for stucco            |                                 | 3.42        | 9                          | 11                          | 7                           | 5.39           |
| 0631 Apply scratch coats to gypsum surfaces for stucco            |                                 | 2.98        | 7                          | 8                           | 5                           | 5.39           |
| 20e APPLY BROWN COAT OF STUCCO                                    | 1a                              |             |                            |                             |                             |                |
| 0629 Apply brown coats over scratch coats to stucco               |                                 | 3.18        | 8                          | 11                          | 8                           | 5.30           |
| 0642 Dampen scratch or brown coats                                |                                 | 2.98        | 11                         | 14                          | 10                          | 3.85           |
| 0666 Scarify brown or scratch coats                               |                                 | 3.31        | 6                          | 9                           | 7                           | 4.03           |
| 20f REMOVE BASE SCREEDS   | -                               |             |                            |                             |                             |                |
| 0653 Remove base screeds  |                                 | 2.95        | 7                          | 9                           | 6                           | 4.39           |
| 20g(1) SMOOTH   | 1a                              |             |                            |                             |                             |                |
| 0637 Apply smooth finish coat textures over brown coats to stucco |                                 | 3.40        | 8                          | 10                          | 7                           | 6.09           |
| 0666 Scarify brown or scratch coats                               |                                 | 3.31        | 6                          | 9                           | 7                           | 4.03           |
| 0642 Dampen scratch or brown coats                                |                                 | 2.98        | 11                         | 14                          | 10                          | 3.85           |
| 20g(2) TEXTURED   | -                               |             |                            |                             |                             |                |
| 0639 Apply texture finish coat textures                           |                                 | 3.17        | 6                          | 9                           | 5                           | 6.16           |
| 0666 Scarify brown or scratch coats                               |                                 | 3.31        | 6                          | 9                           | 7                           | 4.03           |
| 0642 Dampen scratch or brown coats over brown coats to stucco     |                                 | 2.98        | 11                         | 14                          | 10                          | 3.85           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP* | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|-------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |             | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 20g(3) COLORED   | -                               | 2.35        | 5                          | 6                           | 3                           | 5.26           |
| 0627 Add color finish coats for stucco   |                                 |             |                            |                             |                             |                |
| 20h CURE STUCCO  | -                               |             |                            |                             |                             |                |
| 0640 Cure plaster or stucco surfaces with burlap                                 |                                 | 2.40        | 4                          | 4                           | 4                           | 5.13           |
| 0641 Cure plaster or stucco surfaces with continuous water                       |                                 | 2.34        | 6                          | 6                           | 6                           | 4.97           |
| 20i(1) INSPECT FOR DAMAGE  | -                               |             |                            |                             |                             |                |
| 0643 Inspect plaster or stucco surfaces for map, shrinkage, or structural cracks |                                 | 3.26        | 12                         | 14                          | 13                          | 4.21           |
| 20i(2) REMOVE LOOSE MATERIAL   | -                               |             |                            |                             |                             |                |
| 0655 Remove loose stucco   |                                 | 3.26        | 13                         | 15                          | 8                           | 3.48           |
| 20i(3)(a) MAP  | -                               |             |                            |                             |                             |                |
| 0659 Repair map cracks in stucco walls   |                                 | 3.62        | 11                         | 12                          | 6                           | 4.44           |
| 20i(3)(b) SHRINKAGE  | -                               |             |                            |                             |                             |                |
| 0661 Repair shrinkage cracks in stucco walls                                     |                                 | 3.38        | 7                          | 10                          | 5                           | 4.64           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 20i(3)(c) STRUCTURAL<br>0663 Repair structural cracks in stucco<br>walls  | -                               | 3.55         | 7                          | 10                          | 5                           | 4.94           |
| 20i(4) PATCH HOLES IN STUCCO<br>0657 Repair holes in stucco walls   | -                               | 3.55         | 15                         | 17                          | 9                           | 4.59           |
| 21a(2) REMOVE SHOWER PAN<br>Q739 Remove conventional shower pans<br>Q741 Remove precast shower pans                       | a                               | 2.92<br>2.88 | 5<br>5                     | 8<br>8                      | 6<br>6                      | 4.93<br>4.85   |
| 21a(5) APPLY FLOAT COAT FOR QUARRY TILES<br>Q722 Float ceramic or quarry tiles<br>Q713 Apply float coats for quarry tiles | 1a                              | 4.28<br>4.29 | 15<br>12                   | 18<br>16                    | 12<br>10                    | 5.21<br>4.93   |
| 21a(6) APPLY NEAT COAT TO PLASTER WALLS<br>Q715 Apply neat coats to plaster walls for<br>ceramic tiles                    | 1a                              | 4.15         | 13                         | 15                          | 7                           | 5.19           |
| 21b(1)(b) MOSAIC<br>Q729 Lay out mosaic ceramic tiles   | 2b                              | 4.54         | 14                         | 19                          | 12                          | 5.49           |
| 21b(6) INSTALL SPACERS FOR QUARRY TILE<br>Q727 Install quarry tile spacers  | 1a                              | 3.34         | 9                          | 15                          | 9                           | 3.96           |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS   | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|---|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|   |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 21b(7) FLOAT CERAMIC TILE<br>Q722 Float ceramic or quarry tile  | 1a                              | 4.28         | 15                         | 18                          | 12                          | 5.21           |
| 26b(1) LOOSE FILL INSULATION<br>K469 Install or replace loose-fill<br>insulation  | -                               | 2.66         | 9                          | 12                          | 7                           | 3.97           |
| 26b(3) RIGID INSULATION<br>K476 Install or replace rigid insulation<br>K488 Install or replace thermoboard<br>insulation      | -                               | 3.57<br>3.03 | 13<br>6                    | 19<br>7                     | 11<br>5                     | 4.10<br>4.22   |
| 27a(2)(c) TEMPERES IN STUCCO<br>Y956 Deploy and erect harvest eagle kits  | A                               | 3.86         | 13                         | 14                          | 14                          | 5.97           |
| 27d(1)(a) TAXIWAYS<br>Y987 Lay out taxiway and runway traffic<br>markings   | -                               | 1.00         | 3                          | 3                           | 3                           | 6.18           |
| 27d(1)(b) RUNWAYS<br>Y967 Establish minimal operating strips<br>(MOSS)<br>Y987 Lay out taxiway and runway traffic<br>markings | -                               | 1.14<br>1.00 | 4<br>3                     | 6<br>3                      | 7<br>3                      | 6.57<br>6.18   |

TABLE B1 (CONTINUED)

| STS REFERENCE/TASKS  | 3-LVL<br>COURSE<br>PROF<br>CODE | TNG<br>EMP*  | PERCENT MEMBERS PERFORMING |                             |                             | TASK<br>DIFF** |
|--|---------------------------------|--------------|----------------------------|-----------------------------|-----------------------------|----------------|
|  |                                 |              | 1ST<br>ENL<br>(N=107)      | 5-SKILL<br>LEVEL<br>(N=169) | 7-SKILL<br>LEVEL<br>(N=108) |                |
| 27e(3) TRACTOR TRAILER<br>Y1007 Operate tractor-trailers for<br>contingency exercises or operations                              | -                               | 1.82         | 3                          | 6                           | 5                           | 5.46           |
| -----  |                                 |              |                            |                             |                             |                |
| 27e(5) FRONT-END LOADERS<br>Y1001 Operate front-end loaders for<br>contingency exercises or operations                           | -                               | 2.85         | 8                          | 14                          | 14                          | 5.30           |
| -----  |                                 |              |                            |                             |                             |                |
| 28h(4)(a) PFM<br>Y982 Install polyurethane impregnated<br>fiberglass mats (PFMs)   | -                               | 2.55         | 4                          | 5                           | 6                           | 5.96           |
| -----  |                                 |              |                            |                             |                             |                |
| 28h(4)(b) CONCRETE SLABS<br>Y979 Install concrete slabs  | -                               | 3.31         | 19                         | 18                          | 12                          | 5.33           |
| -----  |                                 |              |                            |                             |                             |                |
| 28i(2) COUNTERMEASURES<br>Y1039 Practice terrorism countermeasures   | -                               | 4.12         | 14                         | 17                          | 15                          | 5.16           |
| -----  |                                 |              |                            |                             |                             |                |
| 28j(2) REPORT AIR BASE DAMAGE<br>Y974 Identify bomb crater damage based<br>on coordinate systems<br>Y1050 Report air base damage | -                               | 2.42<br>2.94 | 10<br>6                    | 13<br>14                    | 19<br>18                    | 5.91<br>5.29   |